DRAFT

Management Framework Plan

for

TIJUANA RIVER VALLEY REGIONAL PARK

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County of San Diego
Parks and Recreation Department

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I. INTRODUCTION

The County of San Diego is developing Tijuana River Valley Regional Park (TRVRP) within the Tijuana River Valley (TRV). It will provide the adjacent population with quality outdoor recreational amenities while protecting and enhancing the natural resources of the valley. In the past decade the County of San Diego has purchased approximately 1,300 acres and will continue to purchase land from willing sellers to complete the TRVRP.

This Management Framework Plan (Plan) provides guidelines to facilitate long and short term planning decisions that will guide the development and operations of the park. The plan also identifies appropriate land uses within the park area of the river valley.

ISSUES

The following issues were considered when establishing the goals and guidelines for the park.

- Protecting areas within the existing TRVRP that are important habitat or have cultural resources
- Maintenance and staffing of park
- Land ownership – accommodating the existing private property owners, anticipating additional land purchases, and establishing agreements with other public agencies owning land.
- Regional recreational needs
- Sensitive wildlife habitat
- Periodic flooding
- Illegal immigration
- Contamination of the park by sewage and trash flows originating in Mexico
- Illegal dumping
- Preservation of existing equestrian community
- Economic sustainability
- Preservation of agriculture
- Monitoring of water quality
- Control of feral animals and invasive plant species

GOALS

The primary goal of the Plan is to provide both a vision and an easily applicable planning framework for the TRVRP. The County envisions a regional park that will harmoniously blend the diverse interests and recreational needs of the region while protecting the natural habitat that serves as the park setting. Within that vision is the need to balance the varied and often discordant issues listed above. Also, viability of the plan in terms of funding is important. The following lists goals to aid in achieving this vision.

- Solicit financial grants and other funding, (e.g., solicit federal to help solve the problems of debris carried across the border by floodwaters.)

- To acquire lease or recreation revenue to offset park operations costs. (Lease payments go into the general fund but they appear in our annual budget as revenue to offset operation costs. Other ways to tie funding to parks include enterprise funds and establishing non-profit organizations.)

- Provide land for lease for appropriate land uses to maintain a source of income for the operations and maintenance of the park

- Provide design guidelines that will improve the visual character and function of the TRVRP

- Provide a range of park amenities that meet the needs of the regional population

- Provide recreational facilities

- Provide high quality trails and equestrian facilities

- Protect and enhance important natural resources
- Facilitate the implementation of the goals of the Multiple Species Conservation Program (MSCP)
- Facilitate the implementation of the goals of the Tijuana River National Estuarine Research Reserve (TRNERR)
- Reclaim disturbed land and return them to productive uses
- Create critical open space linkages to areas outside of the TRVRP
- Maintain agricultural uses where viable
- Include Public outreach programs
- Provide an implementation strategy

PLANNING AND APPROVAL PROCESS BACKGROUND

A Technical Advisory Committee (TAC) was created in January, 1999 by the County of San Diego. The primary role of the TAC was to advise the County of San Diego's Parks and Recreation Department in the development of a Management Plan that would direct future activity within the TRVRP. The TAC was instrumental in identifying the above listed issues and goals.

The TAC was comprised of representatives from public agencies or special interest groups that own land within, have jurisdiction over, or represent existing uses on the TRVRP. (See TAC membership, Appendix B).

The process to develop and approve the Plan is briefly outlined below:

Phase 1 – Data Collection / Conceptual Land Use Studies

- Opportunities and constraints report prepared
- TAC formed
- Draft Conceptual Park Plans prepared and reviewed by TAC
- Community Workshop #1
- Preferred Plan selected
- Conceptual designs for use areas prepared and presented to TAC

Phase 2 - Management Report

- Draft report prepared
- Community workshop #2
- Final report prepared
- Request a letter from City of San Diego regarding this plan's conformance to the City's MSCP and Land Use Plan
- Request a letter from California Coastal Commission regarding this plan's conformance to the Coastal Plan
- Request a letter from the Coastal Conservancy regarding this plan's conformance
- Request a letter from Navy regarding this plan's conformance to the County's lease agreement
- Approval by Director of Parks and Recreation
- Amend Land Management Agreement with the City of San Diego to reflect changes in ownership
- Enter into Land Management Agreement with State Department of Fish and Game regarding Dairy Mart Ponds.

II. SETTING

Tijuana River Valley Regional Park (TRVRP) is located in the southwest corner of San Diego County. Generally, the park is bounded by Dairy Mart Road on the east (except for a portion of the Dairy Mart Ponds that extend further east), the Tijuana Estuary on the west, the Mexican border on the South, and Sunset Avenue or the residential development on the north.

INSERT FIGURE 1 vicinity map here

The TRVRP's defining features are Smuggler's Gulch, Spooner's Mesa, and the riparian woodland along the Tijuana River. It extends from Spooner's Mesa along the border, across the Tijuana River, to Sunset Avenue on the north. The western portion of TRVRP is within the Tijuana River National Estuarine Research Reserve (TRNERR). The TRVRP contains a rich cross section of the Tijuana River Valley's vegetation communities. The majority of the property, however, is in the middle of the river valley and its riparian corridor.

PROPOSED PARK BOUNDARY

The proposed boundary of Tijuana River Valley Regional Park (TRVRP) includes approximately 1,800 acres within the Tijuana River Valley. In addition to the land owned in fee title by the County, the proposed park includes land owned by other public agencies. The County plans to establish lease agreements, or Memorandums of Understanding (MOU), or other agreements authorizing the County to manage this land. The County of San Diego is one of the major property owners within the valley **(Figure 2 Park Boundary Map)**.

The current (May 2000) land area under public ownership is as follows:

- County owned land 1,355 ac.
- City of San Diego 141 ac.
- State Parks 7 ac.
- State of California 60 ac.
- Leased from Navy 6 ac.

Total 1,569 ac.

The County has an existing management agreement for the City of San Diego's land. It will need to be revised once the park plan is completed.

California State Parks owns 7 acres of land near the ponds located on the Southwest corner of Sunset Ave and 19th Street. The State of California also owns the Dairy Mart Ponds in the eastern portion of the TRVRP. The County will need to enter into a Land Management Agreement with the State Department of Fish and Game regarding the Dairy Mart Ponds land.

The land leased from the Navy is located at the corner of Sunset Ave. and Saturn Blvd. If proposed uses change, the existing Navy lease will need to be updated to reflect those changes. The County may also seek to enter into an agreement with the International Boundary and Water Commission (IBWC) to manage the IBWC land located on the northeast side of the newly realigned Dairy Mart Bridge (not included in the list).

There is privately held land both within and adjacent to the proposed park boundary. Except for parcels where property owners have expressed a desire to sell to the County or are proposing land uses consistent with the park plan, the private property is not included in the park use plan. Both the City of San Diego and the County have ongoing efforts to acquire additional land from willing sellers. General guidelines for how this land may be added to the TRVRP are included in the Implementation Section of this plan.

Pubic Agencies with Jurisdictional Authority within the TRVRP Boundaries:

- **U.S. Government:** Navy, Fish and Wildlife Service, Environmental Protection Agency [EPA], Army Corps of Engineers [ACOE], International Border Patrol, National Oceanic and Atmospheric Administration [NOAA], International Boundary and Water Commission [IBWC]
- **State of California:** Department of Fish and Game, Department of Parks and Recreation [Tijuana River National Estuarine Research Reserve] California Coastal Conservancy and the Coastal Commission
- **County of San Diego**
- **City of San Diego**

Municipal Jurisdiction: City of San Diego

Existing Land Uses:

- Equestrian**:** Four separate lease agreements totaling 16.5 acres currently support equestrian related land uses.

- Wildlife Habitat**:** Approximately 930 acres of TRVRP include important natural resources that provide habitat for a wide range of plant and animal species, several of which are listed as threatened or endangered. This includes approximately 300 acres within the eastern portion of the TRNERR (see description below).

- Agricultural**:** Agricultural related leases comprise approximately 70 acres. Recently, two large agricultural leases have been terminated as a result of problems with the lessees (Crown Point Enterprises and Effie May Farms).

TRVRP Land within Floodplain/ Floodway: 1,000 acres.

GEOGRAPHICAL CONTEXT

Focused Planning Area
In June of 1988, voters approved Proposition 70 (The Wildlife, Coastal and Park Land Conservation Act) that allocated 10 million dollars for the acquisition of land in the Tijuana River Valley (**TRV)**. On November 21, 1989, the San Diego County Board of Supervisors approved the Focused Planning Area (FPA) to designate an area for future planning and land acquisitions. The FPA, however, has no regulatory significance. It was designated solely to facilitate planning for this area. The TRVRP is located within the larger FPA. The FPA is an area of approximately 4,000 acres that encompasses the TRV from the city of San Ysidro in the east to the Pacific Ocean in the west, the U.S.-Mexico border in the south and the City of Imperial Beach to the north. It outlines the entire TRV from the river's point of entry at the U.S.-Mexico border to its estuary at the ocean's edge (**Figure 3**). (See Technical Appendices, Appendix F for additional FPA data)

Tijuana River National Estuarine Research Reserve
The Tijuana River National Estuarine Research Reserve (TRNERR) is also located within the FPA. TRVRP and TRNERR overlap. Approximately 360 acres of TRVRP are included with the 2,500 acres of TRNERR. TRVRP lands within TRNERR are located within the eastern portion of TRNERR and are designated as either an Ecological Buffer Zone or Wetland/Wildlife Conservation Zone/Interpretation Zone.

Tijuana River Watershed
The FPA is located within the 1,731 square mile Tijuana River watershed, of which 2/3 is located in Baja California (**Figure 4**). Several watershed management projects are on-going and include:

- Binational water quality monitoring program
- Tijuana River Watershed GIS system
- Goat Canyon Sediment Management Plan
- U.S. – Mexico Border XXI Program
- River Basin studies conducted by San Diego State, UC San Diego, and Universidad Autonoma de Baja California.

These and other studies, while related to the TRVRP, are not addressed in this document. Watershed related issues include:

- Erosion
- Sedimentation
- Stormwater management
- Sewage spills
- Trash

The long-term sustainability of the natural resources within the FPA will require participation in the regional effort to improve the quality of the Tijuana River Watershed.

Figure 3 Ownership Map

Figure 3 Ownership Map

Figure 4 Watershed

BIOLOGICAL RESOURCES

Background
The TRVRP is comprised of a rich diversity of vegetation communities and wildlife species. Riparian habitats within the park represent some the largest and most important habitat systems in San Diego County.

Habitat types within the TRVRP include:
- Disturbed
- Riparian woodland
- Transitional riparian or mulefat scrub
- Diegan coastal sage scrub
- Coastal chaparral
- Maritime succulent scrub
- Grasslands

Endangered or Threatened Species within the Park:
- California gnatcatcher (federally listed as endangered)
- Least Bell's vireo (federally listed as endangered, Federal Register, 59-22, February 2, 1992)
- Southwestern willow flycatcher (*Empidonax traillii extimus*) (March 29, 1995 Federal Register, 60-38, February 27, 1995). Potential Critical Habitat is designated at the eastern riparian area of the valley (Federal Register, 59-22, February 2, 1992).

The Cooper's Hawk and northern harrier are not threatened or endangered, but both are considered "covered" under the MSCP.

Critical Habitat
The riparian woodland is of principal value and concern. It provides critical habitat for the federally endangered least Bell's vireo and southwestern willow flycatcher. The riparian area east of Hollister Street is designated as critical flycatcher habitat. Critical vireo habitat extends from the Dairy Mart Ponds west to 15th St. Restoration of critical habitat areas to a natural state will be required to protect these endangered species.

Least Bell's Vireo Critical Habitat

Regional Park Within Areas of Critical Habitat
Creating a regional park within areas of critical habitat requires careful planning and design. The MSCP, the FEMA floodway limits, and existing land uses were instrumental in determining the shape of the TRVRP. MSCP guidelines clearly restrict the development of active use areas within large portions of the park. Particular areas, like the agricultural fields on Spooner's Mesa, have been identified as areas for active uses (MSCP, Mesa Area, Priority 2).

Consideration is given to both protecting critical habitat and, at the same time, to providing recreational amenities for human use. While these uses need to be separated from each other, they can be successfully integrated. For instance, buffers from human activity can protect critical habitat areas. Adequate buffer areas should be provided around both the riparian woodland and the specific areas of critical habitat.

Opportunities for passive recreation such as hiking and bird watching could exist within the buffer areas. The riparian woodland also serves as a valuable wildlife corridor connecting the eastern valley with the estuary. Opportunities also exist to provide north/south linkages for wildlife in the surrounding habitats, such as the coastal

sage and chaparral communities and to connect with the water source at the river. At the eastern end, the Dairy Mart Ponds offer excellent opportunities for both hiking and bird watching along the Ponds' edge. The County is currently interested in entering into a MOU for the management of the Dairy Mart Ponds.

Agricultural practices adjacent to the riparian woodland and the critical habitat areas should be monitored for any deleterious effects on these habitats. Where these occur, there are opportunities for implementing more compatible agricultural practices that would allow this land use to remain in place.

Other advantages in combining seemingly disparate uses are:

- Ecological diversity and richness provides setting for environmental education and passive recreational uses
- The TRVRP will be instrumental in implementing the goals of the MSCP
- Existing agricultural lands provide revenue to fund other park projects
- Conversion of disturbed land to productive reuse will improve visual and ecological quality of park and adjacent properties
- Enhancement of critical habitat for the least Bell's vireo and southwestern willow flycatcher

CULTURAL RESOURCES

The Tijuana River Valley has a rich and interesting cultural history. While it follows the pattern of human involvement with the landscape that is typical of most of Southern California, its history is made more unique due to its proximity to the U.S. and Mexican Borders.

Human beings have enjoyed the beauty and natural resources of the valley as early as 10,000 years ago when the San Dieguito Tribe occupied the valley.

The most recent of the indigenous cultures of southern San Diego County, the southern Kumeyaay, inhabited an area from Torrey Pines State Beach south into Baja California. Evidence suggests that the Kumayaay managed the lands they occupied, possibly land within the Tijuana River Valley. They employed a variety of agricultural techniques incorporating the use of fire and guiding water to their crops. Land ownership patterns around the Kumeyaay were organized according to "ethnic," "band," and family territories, and involved the rights to certain plots of land which had been repeatedly worked by a particular group.

Evidence suggests the existence of a Kumeyaay village within the Tijuana River Valley inhabited at the time of Spanish arrival and possibly until 1850. This village has since been buried by sediments from floods. Archaeological sites in the Border Highlands are believed to have been quarry areas for tool-making by various prehistoric cultures; still other sites of varying importance have been found within the valley.

In 1769, two Spanish land expeditions arrived in the San Diego area. Descriptions of the Tijuana River Valley from Father Juan Crespi's and Father Junipero Serra's letters and diaries are short, but descriptive enough to impart an understanding of how the valley may have looked. Smuggler's Gulch has been identified as Father Serra's entry into the valley, while Farther Crespi's point of entry was probably farther west. Crespi described the land as " a large plain of good land with much green grass. We stopped near the village, where we had good water and pasture for the animals. Althought firewood is scarce, the mountains, which are not far off, have it in abundance." Serra describes this same area as "a nice pasture land [and] a pleasant river of good water." They encamped at an Indian village they christened San Pablo, on a plain

deemed "very attractive for placing a good mission."

Following the Mexican independence in 1821 and the subsequent secularization of the missions, the TRV grazing land was divided into three Mexican ranchos: one large grant of 26,000 acres to Santiago Arguello, and two smaller land grants. The Treaty of Guadalupe Hidalgo between Mexico and the U.S.A. in 1848 ended the war between the two nations and established an official boundary line. The TRV was now part of the United States. Two years later it became part of the new state of California.

The first public school in California was built in the Tijuana River Valley in December of 1849.

For the next 100 years livestock continued to wander the unfenced valley, while more and more small farmers began to show an interest in the valley's rich bottom land. Finally, in 1869, the Arguello rancho was broken up and the area was opened to the public. The "no fence" law of 1872 made the ranchers responsible for protecting crops from meandering cattle; the act essentially drove the ranchers from the valley.

In the 1880s, a railroad connected the villages of Tijuana and Oneonta to San Diego. A stage line carried tourists and picnickers to the international boundary marker near Border Field. As proof that recreational use of the valley is not just a 20th-century concept, the marker was enough of a draw to attract 100,000 visitors in 1887, according to one account.

The real estate land boom went bust by 1890, and agriculture hung on in the valley, though beset by the same natural forces that had contributed to the valley's richness eons before. The San Diego Union, of July 28, 1890, carried a notice that the Ladies' Annex of the Highland District was "agitating" to have a cleanup crew clear out the brush and willows in the river bed "which would enable the river to run in its old channel, instead of all over the valley." The women would "do their part" by going along and serving a picnic lunch each day to the men. Apparently their efforts were futile: in 1891 a flood washed away not only many of the farms, but the village of Tijuana (The Mexican town was soon rebuilt on higher ground in its present location.). Between 1852 and 1986 seven floods caused significant damage (NEED TO UPDATE) in the TRV. The floods not only discouraged would be residents, they made life for the farmers unpredictable at best, if not impossible. The Little Landers, a commune of back-to-the-earth enthusiasts, were operating a community of small farms near San Ysidro –- until the apocalyptic flood of 1916 wiped them out.

Those farmers who remained in the valley encountered another problem. Years of pumping water from wells, combined with the construction of dams upstream and the loss of watershed, enabled the saltwater to intrude into the groundwater table. The results were disastrous for the crops. By the 1930s, agriculture had begun to decline appreciably, and by 1965 only 30 percent of the valley was in use for agriculture. The severe floods of the early 1980s lowered that percentage even further.

Military Presence

Soon after Europeans arrived in the area, the military made its presence known. In 1795 soldiers from the Presidio briefly took over the valley. Quiet for a 100 years, the valley next saw fighting along the border during the Mexican revolution of 1910. The U.S. Army established a military presence. The "Battle of Tijuana" in May 1911 was witnessed by thousands of San Diegans who journeyed to the border in cars or buggies, on horseback or bicycles. There, they lined the hillsides near the U.S. customs house and watched and listened as Federales battled insurrectionists (many of whom were actually from the American side).

Following the rebel's initial victory, San Diegans were charged 25 cents to view the battle scenes in the Mexican village. They were also permitted to visit the gambling casinos but had to surrender 25 percent of their winnings to the rebel treasury.

The military strengthened its presence in the Tijuana River valley over the next decades, as the navy established a training site at Ream Field and utilized Border field for artillery practice. At one point in the 1960s the Navy became involved in a controversy over where to route a proposed river channel; they claimed its construction would disrupt their research on Polaris submarine navigation, which they intended to conduct on a parcel of land in the channel's path

There was even a proposal in 1965 for a nuclear generating plant in the valley. SDGE had set aside a 200 acre site as a possible location for such a facility.

Development Park and Open Spaces
Border Field State Parks was created in 1971. The 2500-acres Tijuana River national Estuarine Research Reserve was created in 1982. The County regional park effort was created through the initiative process when voters approved Proposition 70 in 1988. Ten million dollars of funding were allocated for the purchase of land in the valley. The County has received other funding and donations including Sunset Park in **19--,** $1.5 million from the Tia Juana Valley County Water District in 1989, EEM in 1996, and $4 million from the Coastal Conservancy in 1998-99, and a $500,000 settlement fund in 1999.

With the approval of the FPA in 1989. The County began to acquire property. The first Management Framework Plan was created for the Valley in June, 1989 by a team of graduate students from California State Polytechnic University Pomona.

AGENCY JURISDICTION, PLANS, AND REGULATIONS

Land planning decisions within the TRVRP will be determined to a great extent by the following policies and regulations:

- Restrictions placed on park land due to the funding source used to purchase the property (i.e. bond act money)
- Tijuana River Valley Local Coastal Program Land Use Plan
- City of San Diego MSCP Subarea Plan
- Floodway (FW), Floodplain Fringe (FPF), and A-1-10 zone requirements
- Federal and state environmental regulations
- City of San Diego Environmentally Sensitive Lands Ordinance
- California Environmental Quality Act (CEQA)
- National Environmental Protection Act (NEPA)
- Coastal Development Permit
- Sensitive Coast Resource Permit
- City of San Diego Hillside Review Ordinance
- County of San Diego Management Framework Plan
- Tijuana River National Estuarine Research Reserve Management Plan
- Coastal Development Act Permit

When park land is used for a public purpose, a county is immune from building, zoning, land use, and other regulatory ordinances of cities. This immunity exists even if a county leases land from another entity for a public purpose. However, if the county leases land to a private entity for a private purpose (i.e. boarding stable, farm, or golf course) that use is subject to the applicable city regulations. Pursuant to County Board of Supervisors Policy F-20, appropriate consideration will be given to normal zoning requirements in formulating recommendations for the facility. While not required "it is desired that project

development conform with all reasonable requirements of the local agency." This exemption does not apply to regulations of "superior" state and federal agencies.

For a more detailed description of the applicable regulations affecting the TRVRP, see Technical Appendices, Appendix A.

III. MASTER PARK PLAN

The final Master Park Plan is the result of the planning process discussed in the introduction. It reflects a balance of public desires and physical and legislative feasibility. The Master Park Plan achieves the goal of the MSCP/MHPA requirements by restoring 320 acres of disturbed habitat to a natural state. At the same time, it provides educational and recreational opportunities for both the local and regional populations. It provides access throughout the park through an extensive trail system. It involves innovative solutions to the issues of stormwater and sediment flows by using passive technologies that enhance the environment while affording it protection. The plan allows compatible historical activities such as agriculture and equestrian uses to remain. And the plan is sensitive to the natural river valley processes such as periodic flooding.

Figure 5 MASTER PARK PLAN

Figure 5 MASTER PARK PLAN

IV. PARK ELEMENT DESIGN CONCEPTS AND MANAGEMENT GUIDELINES

Design concepts have been created for the major park elements in each of the land use areas identified in the Master Park Plan. They are intended to act as a guide in the development of construction designs for the park area uses. Specific components for each use area are identified and located within the concept plans.

The purpose or need, the short term goals, and the long term goals for each area are identified. A brief description of the design concept is given. Management issues for the proposed area uses and conceptual designs are identified and management guidelines are proposed. Conceptual illustrations of the design concepts are included for each use area.

SPOONER'S MESA PICNIC/YOUTH PROGRAM AREA

GOALS AND OBJECTIVES

Purpose / Need

- To provide protection of critical natural resources through concentration of day use picnicking and youth program activities within designated areas
- To provide youth program overnight camping opportunities.
- To provide passive recreational benefits for the local and regional population
- To provide public educational opportunities

Short-term Goals of Facility (1-5 years)

- To create public awareness of the recreational and environmental values within the park
- To achieve popularity and regular use by public
- Construction of start-up infrastructure

Long-term Goals of Facility

- To provide environmental enhancement
- To provide public education
- To facilitate focussed planning area (FPA) goals
- To provide community and cultural enhancement

Implementation (Ric-I need your input)

- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

Located along the northern limits of Spooner's Mesa, the day use area will provide picnic sites for the equestrian, hiker, and mountain bike community. An equestrian / hiking trial will provide access for equestrian users and hikers directly from Monument Road and from the western slopes of the mesa along existing access routes. Mountain bikes and hikers will be able to reach the day use areas from the east utilizing the existing access road. Access to the mesa will also accommodate Border Patrol operations. Improvements within the day use area include:

Picnic sites	38
Picnic sites (with hitching posts)	16
Restrooms	2
International Compass	1
Camping sites	9
Group area with pavilion	1

The design put the park uses at the northern edge of the mesa—as far as possible from the border fence—to minimize operational conflicts with Border Patrol and to minimize visual impact of the border fence.

MANAGEMENT ISSUES AND GUIDELINES

Issues

- New border fence
- Access road condition and upkeep
- Prehistoric sites
- Managing use of youth activity area
- Site maintenance

Management Guidelines

- Access road up to the Mesa will be closed to general public use unless funding/service is provided to maintain the road to County Standards (contact DPW to ask about public road standards)
- Youth Groups will reserve camp sites through the District Park Manger
- Youth groups will be required to bring up their own portable toilet and water supply –pack it in, pack it out approach
- Rangers will inspect Spooner's Mesa at least once weekly and after a youth group has used the youth activity area. They will remove trash from the picnic areas and inspect the facilities and make repairs as needed.

Figure 6 SPOONER'S MESA PICNICKING AND YOUTH PROGRAM AREA

Figure 6 SPOONER'S MESA PICNICKING AND YOUTH PROGRAM AREA

SMUGGLER'S GULCH SEDIMENTATION BASINS AND CONSTRUCTED WETLANDS FILTRATION SYSTEM

GOALS AND OBJECTIVES

Purpose / Need

- To provide non-chemical treatment of stormwater runoff from the Smuggler's Gulch watershed into the river valley
- To improve the water quality entering the Tijuana River
- To allow research in the area of wetland filtration systems
- To enhance wetland and adjacent habitat within the river valley

Short-term Goals of Facility (1-5 years)

- To generate public awareness of water quality treatment options
- To gain acceptance by public
- Construction of start-up infrastructure

Long-term Goals of Facility

- To provide environmental enhancement through the creation of habitat and improved water quality
- To provide public education regarding the compatibility of human systems and natural environmental systems
- To improve water quality entering the valley
- To enhance wetland and adjacent habitats
- To facilitate focussed planning area (FPA) goals
- To provide community and cultural enhancement

Implementation

- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

Like Goat Canyon to the immediate west, Smuggler's Gulch experiences severe sedimentation throughout the year. The Smuggler's Gulch watershed is approximately 4.7 square miles in size and is almost entirely located in Mexico. It is estimated that the watershed has a sediment yield of approximately 54 acre-feet. This has resulted in the degradation of habitat and water quality within the Tijuana River Valley.

The purpose of the sedimentation basins and constructed wetlands is to prevent the filling of riparian habitat, to reduce sedimentation of the pilot channel and closure of Monument Road, and to be part of the comprehensive stormwater management plan for the valley. The constructed wetlands downstream of the sedimentation ponds are intended to improve water quality and enhance adjacent habitats. These facilities would be built in coordination with efforts of the IBWC to capture sewage and control sediment. The following is a brief description of the proposed filtration system for Smuggler's Gulch:

Siltation Basins #1-4: The primary purpose of the basins are to trap the sediments before they reach the constructed wetlands. The basins would be approximately 7 to 10 feet deep and would periodically require the removal of sand and other materials. Water quality would improve as the stormwater moves from one pond to the next.

Constructed Wetland Basins #1-3: Three constructed wetlands will be located north of Monument Road. They will function as biological filters and will enhance the water quality of stormwater run-off within Smuggler's Gulch.

MANAGEMENT ISSUES AND GUIDELINES

Issues

- New border fence project currently calls for 300 foot wide fill slope which will impact the design for sedimentation basins
- Sediment and rock cobble must be hauled out on a regular basis.
- Trash washing down the river must be captured or picked up on a regular basis
- Equestrian Crossing must be maintained
- Flood waters frequently top Monument Road at Smugglers Gulch, causing the need for the road to be closed

Management Guidelines

- Coordinate with the Army Corps of Engineers on the design of their border fence project to ensure that the fence project will address the problems of trash and sediment control
- If the County is required to build the sediment basins on its own, County shall contract for design and permitting of the project
- County shall solicit requests for proposals to maintain the sediment basins. Value of the extracted material may help to offset the cost of operating the basin
- City of San Diego shall continue to maintain Monument Road.

Figure 7 SEDIMENTATION BASINS/WETLAND FILTRATION

Figure 7 SEDIMENTATION BASINS/WETLAND FILTRATION

EQUESTRIAN CENTERS

GOALS AND OBJECTIVES

Purpose / Need

- To provide revenue generation for the park
- To allow continued use of the park by the current equestrian community
- To provide facilities for and to invite the use of the regional equestrian community

Short-term Goals of Facility (1-5 years)

- To remove the current equestrian facilities from within the floodway
- To conclude construction of the start-up infrastructure
- Construction of phase one of the equestrian facilities
- To begin revenue generation from the use of phase one

Long-term Goals of Facility

- Economic sustainability
- Conclude phases 2 and 3 of the equestrian facilities
- To provide public education regarding the compatibilities and incompatibilities of equestrian use within a native habitat restoration area.
- To facilitate focussed planning area (FPA) goals
- To provide community and cultural enhancement

Implementation

- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

The park will provide for rental and long-term boarding facilities for equestrian use. Additionally, riding and dressage rings will provide space for equestrian schools and equestrian events. Various sites have been identified as suitable for equestrian facility development and are described below:

FACILITY A (EQUESTRIAN CENTER)
Acreage: 7.0
Barns: 3 (50 horses each. Includes 3 – 12'x12' tack rooms, 1 restroom and 8 grooming areas)
Riding/Dressage Arena: 1(120' by 240'), (includes bleachers for 200 people and a judge viewing stand)
Parking: 32 spaces (includes 2 disabled)
Feed Storage 4800 square feet
Automatic Hot Walkers 4 (40'dia. each)
Lunge/Turnout Paddocks 2 (50' diameter)
Paddocks 1.5 acres

FACILITY B (BOARDING ONLY)
Acreage: 1.9
Corrals:16 (12' x12')
Parking: 20 spaces
Feed Storage 800 square feet
Paddocks 1.0 acres
Lunge/Turnout Paddocks 2

FACILITY C (BOARDING ONLY)
Acreage: 1.4
Corrals:6 (12' x12')
Parking: 6 spaces
Feed Storage 800 square feet
Paddocks 1.0 acres
Lunge/Turnout Paddocks 1

FACILITY D (BOARDING ONLY)
Acreage: 1.0
Corrals:6 (12' x12')
Parking: 6 spaces
Feed Storage 800 square feet
Paddocks .5 acres
Lunge/Turnout Paddocks 1

FACILITY E (BOARDING ONLY)
Acreage: .5
Corrals:4 (12' x12')
Parking: 4 spaces
Feed Storage 800 square feet
Paddocks .4 acres
Lunge/Turnout Paddocks 1

FACILITY F (EQUESTRIAN CENTER)
Acreage: 7.0
Barns: 2 (50 horses each. Includes 3 - 12x12 tack rooms, 1 restroom and 8 grooming areas)
Riding/Dressage Arena: 1 (120' by 240') (includes bleachers for 200 people and a judge viewing stand)
Parking: 32 spaces
Feed Storage 4800 square feet
Automatic Hot Walkers 4 (40'dia. each)
Lunge/Turnout Paddocks 2
Equestrian Picnicking/Camping 1.2 ac.
Paddocks 0.3 ac.

MANAGEMENT ISSUES AND GUIDELINES

Issues

- Over use of open space/trails
- Manure Management
- Cowbirds
- Accidents
- Floodway/Floods
- Flies
- Cruelty to animals

Management Guidelines

- All existing equestrian leases in the park are considered "grandfathered" at the time that the Director of Parks and Recreation approves this plan. Even if they are in an area no longer designated on the plan for equestrian uses, they may stay. But this right cannot be transferred to new lessees.
- Maintain steady level of equestrian use in park by opening up new equestrian leases only as existing leases in floodway leave.
- Equestrian camping will be established at Facility F, with the idea that as new land is acquired the equestrian camping may be relocated to that new location.
- Equestrian camping will be self-supporting and self policing. They will need to provide their own portable toilets and haul out their own trash.
- Equestrian leases will be required to submit and comply with a manure management plan.
- Rangers are not required to subdue a wild horse. That will be the responsibility of the owner.
- No keeping horses overnight in the corrals provided at the ranger stations.
- See also guidelines under Agriculture leasing.

Figure 8 EQUESTRIAN AREA 'A'

Figure 8 EQUESTRIAN AREA 'A'

Figure 8 EQUESTRIAN AREAS 'A-E'

Figure 8 EQUESTRIAN AREAS 'A-E'

Figure 8 EQUESTRIAN AREA 'F'

Figure 8 EQUESTRIAN AREA 'F'

CULTURAL MUSEUM / RANGER STATION / MAINTENANCE FACILITY

GOALS AND OBJECTIVES

Purpose / Need

- To serve as a central information hub for the Regional Park
- To provide a centralized location for park operations
- To provide a central location for park events
- To provide educational opportunities through a historical cultural museum
- To provide educational and recreational opportunities that are both regional and local in scale

Short-term Goals of Facility (1-5 years)

- To create public awareness of the park, its unique natural and environmental resources, its history, and its recreational opportunities
- To gain acceptance by public
- To become regularly and familiarly used by public
- Construction of start-up infrastructure

Long-term Goals of Facility

- To provide economic sustainability through park events and programs
- To provide public education
- To facilitate focussed planning area (FPA) goals
- To contribute to community and cultural enhancement

Implementation

- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

Located on Monument Road, and approximately ¼ mile west of the new Dairy Mart Bridge, an existing structure will be redesigned to accommodate a cultural museum (1,200 square feet), and a park operations center (1,200 square feet).

The museum will provide exhibits that feature the unique biological and cultural history of the Tijuana River Valley. The park operations portion of the building will provide park staff with a strategically located facility to manage the day to day operations of the park. Associated with the cultural museum are two 32 space parking areas. Additionally, a .3 acre picnic area will provide parks visitors with a shaded day use area.

A park maintenance facility (approx. .3 acre) is sited south of the parking area and will provide maintenance staff with a service yard and equipment storage space.

MANAGEMENT ISSUES AND GUIDELINES

Issues

- Keeping public and operational areas separate.
- Public Restrooms?
- Maintaining Museum
- Overnight

Management Guidelines

Figure 9 CULTURAL MUSEUM, ETC.

Figure 9 CULTURAL MUSEUM, ETC.

DAY USE STAGING AREAS

GOALS AND OBJECTIVES

Purpose / Need

- To provide strategically placed nodes within the parks circulation network
- To provide adequate parking areas for park users
- To provide comfortable (picnic) rest areas
- To provide adequate restroom facilities throughout the park
- To provide a comfortable, informative, atmosphere for park visitation

Short-term Goals of Facility (1-5 years)

- To allow public access to a variety of access points within the park
- To provide public access to information about the park and its features
- To conclude construction of staging area infrastructure and facilities.

Long-term Goals of Facility

- Protection of the existing and restored native habitats through public education.
- Protection of the existing and restored native habitats by directing areas of public parking, picnicking, and restroom use.
- To facilitate focussed planning area (FPA) goals

Implementation

- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

Two staging areas totaling approximately four acres will provide park uses with information about the special features of the park and will include shaded picnic sites. Specific improvements include:

Staging Area A: Located adjacent to the Dairy Mart ponds the site will include 25 parking spaces, a restroom, information kiosk and a 1.5 acres picnic area. The site is adjacent to the parks trail system providing park users access to all features of the park.

The staging area design should emphasize the visual experience of entering the park. The visitors should feel as if they have entered a managed open space and recreation area.

Staging Area B: Located next to the new Hollister Street Bridge and currently serving as the park ranger station, this structure will become a Friends of the Park/Docents Center and Staging Area. Picnic tables will be added under the cottonwood and sycamore trees to the west of the structure.

MANAGEMENT ISSUES AND GUIDELINES

Issues

- Used for Equestrian, Bikers, Walkers, and Birders. Need to control undesirable uses such as evening drinking, or misuse of the facility.
- Trash
- Condoms
- Vandalism
- Rodents
- Frequency of maintenance
- Docent coordination
- Group activities coordination

Management Guidelines

- Park staff will secure park access gates nightly
- Park staff will open park access gates daily
- Picnic and restroom facilities will be serviced once per week
- Docent tours and group activities will be coordinated through the ranger station on Monument Road

- Tamper resistant trash receptacles will reduce vandalism and attraction of wildlife

Figure 10 DAY USE STAGING AREAS

Figure 10 DAY USE STAGING AREAS

RECREATION COMPLEX

GOALS AND OBJECTIVES

Purpose / Need
- To provide revenue generation from recreational leagues and recreational events
- To provide recreational benefits for the local and regional population

Short-term Goals of Facility (1-5 years)
- Public awareness
- Acceptance by public
- Use by public
- Construction of start-up infrastructure completed

Long-term Goals of Facility
- To provide economic sustainability
- To provide recreational benefits for many generations of public use
- To facilitate focussed planning area (FPA) goals

Implementation
- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

The existing recreation center will be expanded to include a total of approximately 23 acres. Sports fields will include four Little League baseball diamonds, one adult baseball field and four multi-use sports fields. The sports fields will not be lighted.

The existing parking area will be expanded into a 40 space parking lot. A new 60 space parking lot will be added at the west end of the site. A pedestrian path will be added that will create a loop around the recreational sports fields and will have 33 picnic sites. A modular restroom will be added at the east end of the site, south of the parking lot.

MANAGEMENT ISSUES AND GUIDELINES

Issues
- Irrigation system
- Fertilization
- Trash
- After hour use
- Vandalism
- Weed control
- Flooding
- Parking
- Scheduled maintenance

Management Guidelines

- Include Schedule of Maintenance (Use Padres Outline)

Figure 16 RECREATION COMPLEX

Figure 16 RECREATION COMPLEX

AGRICULTURE / NATURAL RESOURCE DEMONSTRATION & RESEARCH CENTER

GOALS AND OBJECTIVES

Purpose / Need

- To provide revenue generation through the nursery site and community garden
- To provide recreational/ therapeutic/ economic benefits for local population through use of community garden
- To provide research opportunities in agricultural techniques that are compatible with the natural environment
- To provide research opportunities in the area of wetland filtration systems

Short-term Goals of Facility (1-5 years)

- To create public awareness of the research, nursery site, and community garden
- To acquire acceptance by public
- To be popularly used by public
- Construction of start-up infrastructure

Long-term Goals of Facility

- To create economic sustainability
- To contribute to public education
- To contribute to wetland filtration and agricultural research
- To facilitate focussed planning area (FPA) goals
- To contribute to community and cultural enhancement

Implementation

- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

The Tijuana River Valley Regional Park Management Framework Plan designates approximately 20 acres and a building formerly used as a produce packing shed/office as an Agricultural/Natural Resource Demonstration and Research Center (Agricultural Resource Center).

The purpose of this land use is to provide a facility for public education and experience of agricultural practices, and a research facility for farm support services. The Resource Conservation District of the Greater San Diego County (RCD) would become the umbrella organization, under which other organizations could perform demonstration, research and community outreach projects. Through the RCD, interested public and private groups could propose projects for this site. The RCD would establish a Community Coordination Council that would review proposed projects for conformance with allowed uses and development as specified in a Memorandum of Understanding with the County.

The plan shows how the site might appear when it is running at full capacity. The site is comprised of five components plus the Agricultural Research Center. Each is described briefly below:

Nursery: The 4.7 acre site will provide growing grounds for many of the plant species required for future habitat restoration projects within the park. Additionally, the site could be used by community groups to grow trees for use in future street tree enhancement projects within the adjacent residential communities.

Agriculture Demonstration Project: Approximately 9 acres of land will serve as research sites to further agriculture research. Typical projects would include Integrated Pest Management (IPM) practices, water conservation techniques and soil erosion studies.

Constructed Wetlands/ Biological Filter Project: Recent research has shown that wetland plant communities greatly improve water quality. A 1.9 acre site will be

designed as a constructed wetlands to study the potential benefits of building similar systems within the park.

Community Garden: Located at the corner of Sunset and Saturn the 3.8 acre community garden will provide the local community with space for individual gardens.

Vegetable Stand / Parking: A vegetable stand located adjacent to the community garden will provide growers an opportunity to sell and trade produce with community members. Also a parking facility would accommodate all users of the Agriculture/ Natural Resources Demonstration Center.

MANAGEMENT ISSUES AND GUIDELINES

Issues

- Effie May packing shed is a public nuisance.
- Trail access through Agriculture Field
- Trail access by packing shed.
- Development of organization structure for management of all components

Management Guidelines

- Community should manage the community garden
- The nursery should be used to support future restoration projects within the park and local tree planting projects.
- The biological filter needs regular monitoring to maintain efficiency and avoid pest problems.

Figure 12 RESEARCH CENTER

Figure 12 RESEARCH CENTER

AGRICULTURE

GOALS AND OBJECTIVES

Purpose / Need
- To provide revenue generation from agricultural leases
- To protect the historic tradition of farming within the river valley

Short-term Goals of Facility (1-5 years)
- To create an acceptance by public of compatibility of agricultural practices within a native habitat restoration/ preservation area
- To encourage use of agricultural practices that are compatible with their proximity to a native habitat restoration/preservation area

Long-term Goals of Facility
- To provide economic sustainability
- To successfully continue agricultural use within the river valley that is compatible with the restoration and preservation of the native habitats
- To facilitate focussed planning area (FPA) goals
- To provide community and cultural enhancement through its historical context and visual amenity

Implementation
- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

The Management Framework Plan provides for approximately 149 acres of agricultural land, all of which is located within the floodway. Water costs dictate crop selection by defining which crops, after paying the water bill, have sufficient enough value to warrant the assumption of the natural and economic risks and uncertainty associated with production of that specific crop. It is anticipated that reclaimed water will be available to farmers in the future.

Any of the following crops (which have been grown in the valley during the past 30 years) would be desirable agricultural uses: artichokes, broccoli, cabbage, carrots, celery, chard, cucumbers, flowers, grass sod, herbs, peppers, pumpkins, radishes, snap beans, specialty lettuces, sprouts, squash, strawberries, sweetcorn, tomatoes, zucchinis, oriental specialty vegetables (bok choy, napa cabbage, chives, other greens) and native plants.

Higher intensity commercial/wholesale nursery uses will generate substantially more revenue than raw crop/ agricultural uses. The coastal climate also provides excellent growing conditions for the production of flowers, ornamental plants, or mushrooms. Flower fields can be an attractive tourist destination. The County may also consider other community oriented agricultural activities such as aquaculture, agroforestry, model farms, historical farms, experimental hybridization programs, nurseries and orchards.

Presently, approximately 86 acres of park land are under lease for either agricultural or equestrian uses. This generates revenue that offsets the County's cost of operating and maintaining the park. The County has attempted to use lease revenues to offset park maintenance costs including staff and supplies. Lease prices have been reduced for certain properties as they are in the flood zone.

Agricultural Lease Potential
In the past 20 years, crops grown in the valley have included: strawberries, cabbage, broccoli, chard, celery, artichokes, sweetcorn, peppers, carrots and radishes, tomatoes, grass sod, herbs, flowers, zucchinis and other squash, pumpkins, specialty lettuces, cucumbers, sprouts, oriental specialty vegetables (bok choy, napa cabbage, chives, other greens) and native plants.

In TRVRP, high water cost, lesser quality land, and direct competition from Baja California have reduced the number of farmers and thus the demand for farmland. The water cost has the effect of reducing land rent. Water costs dictate crop selection by defining which crops, after paying the water bill, have sufficient enough value to warrant the assumption of the natural and economic risks and uncertainty associated with production of that specific crop. This situation has placed the land owner in the position of subsidizing the grower. Owners of farmland need to consider the "effective rent" which includes the rent plus the cost per acre-foot of water. Lot size, slope, and access also affect lease revenue.

Crop alternatives are less in the South Bay due to constraints of mostly Class III soils and the poor quality of the groundwater. In the TRVRP, once the City of San Diego's flood strategy is implemented, farmers on County property will face the additional risk of periodic flooding with water that may contain sewage and debris from Tijuana. Fencing is another key issue. Farmers want to fence their property to discourage poaching; but in the floodway fencing may not be permitted because it obstructs the flood flow.

Higher intensity commercial/wholesale nursery uses will generate substantially more revenue than other row crop/ agricultural uses. However, the type of structures allowed will be limited within the floodway. Because of the limited profit potential, many crops, such as snap beans, peppers, cauliflower, and broccoli serve little more than as break-even rotation crops to utilize land. Crops such as specialty immature leaf lettuce crops and artichokes may join celery, market tomatoes, and strawberries as the principal profitable crop alternatives.

While conventional farming may be on the decline within the park, opportunities exist for other types of agriculture including: aquaculture, agroforestry, and other types of organic farming. The County will be extremely careful when entering into lease agreements with experimental farming operations.

The County has also considered other community oriented agricultural activities such as community gardens, model farms, historical farms, experimental hybridization programs, horse farms, nurseries and orchards.

The valley is attractive because it presents a frost-free zone. Growers interviewed indicated that they would consider leasing land in TRVRP for greenhouse production of flowers, ornamental plants, or mushrooms if the greenhouses would not be subject to flooding, and natural gas were available. Flower field owners expressed the importance of being able to fence their crops. Flower fields can also be an attractive tourist destination as they are for the City of Carlsbad. Between 2,500 – 5,000 visitors per day stop to see the flowers in Carlsbad in the spring.

Another issue that needs to be considered in locating agricultural leases is the conflicts that have occurred between the farmers and equestrian groups, mostly because of trucks impacting the horses on the access roads.

MANAGEMENT ISSUES AND GUIDELINES

Issues

- Monitoring leases
- Unsightly trash and equipment storage
- Composting
- Vermiculture
- Conflict between trail users and lessees.
- Vandalism
- Truck Traffic
- Water use
- Flooding of fields
- Restriction on Fences

Management Guidelines

- Lease Manager shall be responsible for monitoring compliance with the lease.
- Lease Manager shall be required to inspect lease premises at least once each quarter.
- Ranger will provide day to day oversight, but is not required to enter onto lease.
- If ranger notices a potential problem with lease, ranger shall notify lease manager and the District Park Manger.
- Lessee shall communicate directly with Lease Manager
- Lease Manager shall communicate directly with lessee. Ranger is not to be used as a conduit
- All leases shall include a damage deposit. The monetary amount of the damage deposit will be proportionate to the financial risk that the County may incur if it were required to restore the property to its pre-lease condition. The lease manager shall recommend the appropriate damage deposit amount
- When land becomes available for lease (See Board Policy on Leasing), Lease Manager shall advertise for requests for proposals
- Lease Manager shall establish a proposal review committee consisting of Lease Manager, parks staff, and one nonpartisan "expert" in the subject area of the lease
- Lease Manager shall negotiate lease conditions with lessee, subject to approval by the Director of parks and recreation

Figure 13 AGRICULTURE

Figure 13 AGRICULTURE

HABITAT RESTORATION

GOALS AND OBJECTIVES

Purpose / Need
- To provide protection of critical natural resources
- To create passive recreational benefits for regional population through habitat enhancement for hiking and nature viewing
- To provide research into habitat restoration

Short-term Goals of Facility (1-5 years)
- To create public awareness of the values of habitat restoration
- To generate acceptance by public
- To prioritize habitat restoration areas and linkages
- To complete restoration planning and construction documents

Long-term Goals of Facility
- To provide environmental enhancement
- To provide visual enhancement of the river valley
- To contribute to public education regarding habitat restoration
- To facilitate focussed planning area (FPA) goals
- To provide community enhancement

Implementation
- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

The TRVRP is comprised of a rich diversity of vegetation communities and wildlife species. Riparian habitats within the park represent some the largest and most important habitat systems in San Diego County. Habitat types to be restored within the TRVRP include:

- Riparian woodland
- Transitional riparian or mulefat scrub
- Diegan coastal sage scrub
- Coastal chaparral
- Maritime succulent scrub
- Grasslands

The riparian woodland is of principal value and concern. It provides critical habitat for the federally endangered Least Bell's Vireo and Southwestern Willow Flycatcher. The riparian area east of Hollister Street is designated as critical flycatcher habitat. Critical vireo habitat extends from the Dairy Mart ponds west to 15th Street. Restoration of critical habitat areas to a natural state will be required to protect these endangered species. The riparian woodland also serves as a valuable wildlife corridor connecting the eastern valley with the estuary.

The plan also provides north/south linkages for wildlife in the surrounding habitats, such as the coastal sage and chaparral communities and to connect with the water source at the river. Most of Spooner's Mesa will be restored to its native Diegan Coastal Sage Scrub.

MANAGEMENT ISSUES AND GUIDELINES

Issues
- Protection of habitat from trespassing
- Protection of habitat from agricultural run off
- Accumulation of trash and debris after flooding
- Maintaining river flow with increased vegetation from riparian restoration
- Public education
- Encroachment by invasive species
- Damage to vegetation by unauthorized roads and trails
- Off and on-site soil erosion control

Management Guidelines

- Inform and coordinate with federal, state and local agencies to help mitigate and manage off-site impacts
- Pursue grant programs to help fund land acquisition and restoration efforts
- Develop volunteer program for regular clean-up and restoration events
- Engage with various universities to perform habitat restoration reseach

(INCLUDE Dairy Mart Ponds—Letter from Audubon Society)

Figure 14 HABITAT RESTORATION

Figure 14 HABITAT RESTORATION

TRAIL SYSTEM / BUFFER SYSTEM

GOALS AND OBJECTIVES

Purpose / Need

- To provide protection of critical natural resources through implementation of buffer system
- To provide protection of critical natural resources by directing human circulation through use of trail system
- To provide recreational benefits for local and regional population
- To act as an informational and experimental medium for research and educational activities

Short-term Goals of Facility (1-5 years)

- To create public awareness of trail system
- To gain acceptance by public
- To be popularly used by public
- To reach a consensus between all regulatory and land owning agencies to agree to a system of trails that existed prior to the adoption of the MSCP
- To complete planning and construction documents of entire trail system
- Construction of start-up infrastructure

Long-term Goals of Facility

- To provide environmental enhancement and protection
- To contribute to public education through use of trail signage and docent tours
- To provide recreational benefits
- To facilitate focussed planning area (FPA) goals
- To contribute to community and cultural enhancement

Implementation

- approval process
- phasing of development
- potential funding sources

DESIGN CONCEPT

Existing trails within the Tijuana River Valley include bicycle, equestrian, and hiking trails. The major network of trails is considered a multi-use trail system and is used for all of the above activities. The Framework Plan proposes to enhance these trails with interpretive information, provide drainage and structural improvements and construct additional trail linkages to provide access throughout the park.

Inter-Agency Trail Coordination MOU

The County has entered into a MOU along with the United States Border Patrol, USF&WS, California State Parks and Recreation Department, City of San Diego, The Tijuana River Valley Equestrian Association, Citizens against Recreational Eviction and the United States Navy.

The primary purpose of the agreement is to facilitate the development of a framework plan for the coordinated planning, alignment, design and development of trails within the Tijuana River Valley.

A committee comprised of members from each organization has been established for the following purposes:

- Coordinate recreational trail links
- Research and pursue various mechanisms to plan, acquire, maintain and patrol trails within the FPA
- Pursue funding sources
- Generate volunteer support
- Draft ordinances and other implementation documents for approval by public agencies

Bicycle Use

The Department of Parks and Recreation Bicycle Regulation Policy allows bicycling on paved and unpaved roads, unless otherwise posted. Bicycles are permitted on trails posted and designated by the Director. Designation will be based on suitability of trail design, public safety, resource protection, accommodating other more

passive recreational uses, and managing trail conflicts.

Existing bicycle paths are marked along Monument Road, and the city-wide bike path designates 19th Street as its access to the valley; however, Monument Road has no shoulder for bicycles, and the 19th Street access no longer connects easily into the valley.

Equestrian Use
The largely natural and agricultural land uses, the wetlands and beach areas, and the relative lack of paved roads and vehicle traffic, combine to make the valley a popular area for equestrian enthusiasts. Several hundred horses are stabled in the valley area and horse rentals and riding lessons are available. The majority of existing equestrian and multi-use trails follow an east/west direction traversing the entire river valley along the river to the coast. North/south connections are made periodically throughout the length of the trail system.

Hiking And Pedestrian Use
Hiking and bird-watching are popular in both the riparian areas and the estuary. The riparian areas allow naturalists the opportunity to view a wide range of wildlife species.

Nature Trail
A special interpretive trail is proposed around the Dairy Mart Ponds. This would be a hiking only trail with strategically placed blinds for wildlife viewing.

Proposed Trail Improvements
All of the existing equestrian and hiking trails will remain with the exception of the trail from Smuggler's Gulch to Spooner's Mesa. This would be redesignated as a bike/hiking trail to avoid dangerous conflicts between equestrian and bike users. Other trail improvements include:

- 3.5 miles of new bike/hiking trails
- 1 mile of hiking only trails (primarily at the Dairy Mart Ponds). Additionally wildlife viewing blinds will be constructed throughout the park.
- 1 mile of equestrian / hiking trails.
- Existing trails will be improved and interpretive information added.

Buffer System

Adequate buffer areas will be provided around both the riparian woodland and the specific areas of critical habitat. Habitat areas will be protected with a vegetated buffer system approximately 150 - 200 feet wide. Opportunities for passive recreation such as hiking and bird watching will exist within the buffer areas. Ultimately, approximately 250 acres of buffer vegetation will be planted. Some portions of the buffer system will include trails. Vegetation within the buffers will be comprised of native species and will reflect, to a great extent, the adjacent habitat.

MANAGEMENT ISSUES AND GUIDELINES

Issues
- Trail Clearing
- Flooding of Trails
- Trail Realignment
- Mitigation
- Cowbird Trapping
- Conflict between trail users and lessees.
- Conflicts between horses and bikes
- Undocumented Immigrant Use of Trails - Prior to the 1994 implementation of U.S. Border Patrol's Operation Gatekeeper, immigrant foot traffic was rampant in the valley. It was for this reason that early trail maps showed no north-south linkages.
- Least Bell's Vireo and Southwestern willow flycatcher critical habitat.
- Coordinating Trails with other jurisdictions

Management Guidelines

- Use the Public Access Use and Involvement Committee of TRNERR (Trails Subcommitee) to coordinate trail planning and routing.
- Coordinate with Equestrian Groups to have spring and fall trail clean up days.
- Expand Use of mounted assistance unit into park as volunteer unit to patrol equestrian trails and educate riders about the equestrian protocals and habitat protection.
- Dogs under control on a leash are permitted in the County Park but are only permitted in three areas in the estuarine reserve: (1) along the beach north of the Tijuana River mouth on the west side of the dunes, (2) on the marked fifth and Iris trail in the Refuge, and (3) in the parking /picnic areas on the mesa within Border Field State Park. The County property within the reserve is subject to this restriction.
- Are dogs allowed on equestrian trails?
- Commercial equestrian rental operators are required to inform customers of trail use policies and regulations.

Figure 15 TRAIL/BUFFER SYSTEM

Figure 15 TRAIL/BUFFER SYSTEM

V. MANAGEMENT / DEVELOPMENT GUIDELINES

Management and development guidelines are outlined for the following park issues:

- Public Access
- Flood Preparedness
- Erosion and Sediment Control X
- Trash
- Illegal Immigration/Border Patrol X
- Sewage and Water Quality X
- Brush Management

The issues, background, opportunities and constraints are discussed. Management and/ or development guidelines are provided to aid the park staff in developing long range solutions to the difficulties of managing a regional park in the river valley.

PUBLIC ACCESS

ISSUES

- Park does not close its gates
- Rangers on Duty 7 days 7-5
- Public Bathrooms at Dairy Mart Staging Area, Spooner's Mesa Picnicking and Youth Program Area, Ranger Station, and docent office.
- Need to limit access to protect habitat
- limit dumping
- stop offroad vehicles
- flood and health
- Educate public as to where they can go
- Effie May road off limits.

BACKGROUND

The public has access to the Tijuana River Valley with four major circulation types:

- Vehicular
- Bicycle
- Equestrian
- Pedestrian

Bicycle, equestrian, and pedestrian circulation are reviewed in the Trails Buffer section.

Three Access Points: Visitors to the valley enter from the 1) east at Interstate 5 via Dairy Mart Road; or 2) through Nestor's residential area from the north; on Hollister Street; 3) northern access is also available at Saturn Blvd. (19th Street); however, because 19th Street no longer crosses the river, vehicles now pass on what used to be a private access road (across the former Effie May lease). This road will need to be designated as a public street if it will continue to be used as a public throughway.

There is no direct vehicle link from the TRVRP to the National Estuarine Research Reserve Visitor Center in the north at Caspian Way.

Daily Traffic Counts: In 1998, the I-5, between Dairy Mart Road and SR-905 had an average daily traffic (ADT) count of 65,000 vehicles. Dairy Mart Road, south of I-5, and Hollister Street, south of Tocayo Blvd., both had ADT counts of approximately 2,000 vehicles. Dairy Mart Road intersects with Monument Road, which runs east/west for the length of the valley alongside the mesas and terminates at Border Field State Park. Monument Road has an approximate ADT count of 1, 000 vehicles from Dairy Mart Road to Border Field State Park (CH2MHILL, 1998). Installation of the South Bay International Wastewater Treatment Plant and a proposed housing development (Coral Gate) in the eastern portion of the valley are expected to increase traffic volume on Dairy Mart Road, but not affect access to the valley. It is used primarily as access to the park and to the residential frontages. The assumed vehicle mix is 93% cars, 1% medium trucks, and 6% heavy trucks (U.S. Army Corps of Engineers, 1995). Dairy Mart Road and Monument Road are paved, two-lane roads with striping.

Access During Floods: In past floods, the river would wash out Dairy Mart Road and Hollister Street, thus cutting off vehicle access to the southern part of the valley. Several projects have been completed or are underway to eliminate this problem.

The City has completed construction of a new bridge over the northern channel of the river on Hollister Street. The City, in coordination with the County, also plans to remove the illegal fill placed on the Brown property immediately west of the old Hollister Street bridge. This will widen the channel under the bridge and increase flow capacity.

The Dairy Mart Road bridge is currently under construction and is anticipated to be completed by the year 2000.
Border Field State Park can only be accessed by passing through the TRVRP on

The State is developing plans to reconstruct and realign Monument Road where it crosses Goat Canyon. The new road will be south of the existing road at an elevation that would allow for year- round access.

Currently, even small storm events flood the Monument Road dip section at Smuggler's Gulch. The problem here is exacerbated by large amounts of debris, trash and sand deposited in the canyon by the floodwaters. The State is currently reviewing plans for sediment basins in Goat Canyon to deal with a similar problem occurring there.
The City has constructed an all weather horse/emergency vehicle crossing over Smuggler's Gulch down stream of Monument Road. (CH2MHILL, 1998).

Transit Service: There is no transit service within the valley. The nearest bus service is available on Dairy Mart Road north of I-5 at Tocayo Blvd. and Hollister Street Light-rail transit service exists from San Diego to San Ysidro terminal adjacent to the border port of entrance (CH2MHILL, 1998).

Internal Dirt Roads: Aside from those roads mentioned above, roads in the valley are in poor or unimproved condition. The U.S. Border Patrol has maintained a network of dirt roads for their own purposes. This network has lead to problems with erosion and deterioration of habitat. Their future road building will have the goal of reducing these impacts (CONCUR, Inc., 1997). They are currently studying a new parallel road concept that would be a 200 ft. graded swath with an all-purpose road that parallels the U.S.-Mexico Border. The road would reduce the need for using many of the existing dirt roads.

Paved and unpaved roads and parking areas compact soils, accelerate runoff rates, exacerbate erosion, disrupt habitat and natural drainage patterns, and impact visitors' trail experience. Use of gravel for road surfacing alters percolation and vegetation patterns. Heavy metals and oil deposited on road surfaces are ultimately flushed into the ecosystem (CONCUR, Inc., 1997). Any use of, or addition of, roads within the County Regional Park should take into account these environmental constraints.

MANAGEMENT GUIDELINES

- The use of the existing entrance roads, Dairy Mart Road and Hollister Street, to the TRVRP should provide adequate access for visitor use. The staging area off Dairy Mart Road will provide a parking, trail access point, and information point for visitors entering the east end of the park.

- Limiting access to one or two entrance/exits provides better security and access control. Service vehicles should use the same entrance/exits. The County needs to coordinate with the Border Patrol to locate gates that will limit public trespass onto the dirt road network.

- The realignment of Dairy Mart Road with the bridge project will eliminate access to the road for several County parcels. The County will need to coordinate with the IBWC to address this access issue.

FLOOD EMERGENCY PREPAREDNESS PLAN

ISSUES

- Allowing safe public access to floodway
- Emergency procedures
- Evacuation plan
- New bridges provide access
- Coordinate with larger flood study
- City to continue to maintain pilot channel and portion of Smuggler's Gulch

BACKGROUND

The northern half of the TRVRP property is within the Floodway (**Figure 20**). Between the floodway and the mesas, but still in the level floodplain, is a strip of the property within the Floodplain Fringe (FPF) zone. The southern-most portion, which includes Spooner's Mesa, is of a higher elevation and is out of both the Floodway and Floodplain. The southern mesas offer the greatest opportunity for permanent structures (see Land Use section for specific zoning regulations and restrictions).

Four major floods have occurred within the river valley since 1980. The floods occurred in January and February 1980, March 1983, and most recently in January 1993. All four floods were between 27,000 and 33,500 cubic feet per second (cfs), just under the 25-year storm level of 35,000 cfs. The storm in 1993 caused significant erosion and caused the northern arm of the Tijuana River to be created, cutting a new path just north of the Hollister St. bridge. Crops were destroyed and agriculture was interrupted. The Tijuana River Valley Task Force was formed in the spring of 1993 to investigate solutions to the problems of flooding in the valley. The task force includes interested private parties, environmental groups, and government agencies. The approved flood control strategy outlined below is the current solution accepted by the task force (BSI, 1994).

THE CITY OF SAN DIEGO'S APPROVED FLOOD CONTROL STRATEGY

The City of San Diego reviewed several alternatives for flood control management in the Tijuana River Valley. The City Council approved the final preferred alternative on May 12, 1995. This management plan will conform with the City's flood strategy. It satisfies the objective of channelizing a 25-year storm event (35,000 cfs) and providing 100-year (75,000 cfs) protection to private property outside the FEMA floodway by maintaining flow conveyance in the main and northerly flow paths. "Channelizing a 25-year storm event" does not imply a "constructed" flood channel. The pilot and northern channel are "primary and secondary low flow" channels. They cannot take on the whole velocity of the river at any time. According to this plan the City (City of San Diego, 1995) will:

- Maintain flow in the northern arm of the river that was created following the 1993 flood as secondary runoff
- Maintain the existing pilot channel as the primary low flow conveyance channel
- Remove all berms within the valley that impede flow and the enhancement of the two existing flow channels
- Construct an armored berm at the north end of the valley to protect the tract housing from a 100-year storm event
- Consider construction of a berm 6 inches above the calculated 25-year storm event boundary to provide further protection and channelization
- Purchase 275 acres of private property over an unspecified time period to remove private property owners from within the floodway
- Construct a bridge to withstand a 100-year storm event at Dairy Mart Road (Constructed in 1999)

The temporary "Bailey" bridge at Hollister St. referred to in the plan has already been replaced with a new permanent bridge.

Existing land uses within TRVRP will be significantly impacted by the implementation of the City of San Diego's flood control strategy. When all earthen berms within the river valley are removed (with the exception of the 100-year berm), this will result in flooding of some lands within the TRVRP that were previously protected by the construction of these illegally placed berms. Agricultural fields and existing structures will be subject to periodic flooding.

The City has entered into an agreement with state and federal agencies to provide mitigation for ongoing maintenance of the Pilot Channel.

Current Damage Caused By Debris Carried Onto Park Property By Flood Waters

In purchasing the lands within the floodway, the County now faces a major maintenance problem caused by debris carried by flood waters from Tijuana and deposited within the park. In 1993-1994 the County spent over six months and $500,000 in cleanup costs after the 1993 flood. This debris problem is not limited to major floods. Every year hundreds of tons of debris are transported across the border. Rather than wasting costly manpower to clean up the debris, the County, in coordination with federal agencies should consider the installation of trash catching devices on the main river channel and in Smuggler's Gulch. This is an international issue and thus a federal agency should take the lead on this project.

The following identifies the opportunities and constraints when proposing a park within a flood zoned area:

Opportunities

- Lands outside of the floodplain are priority sites for future development of permanent structures
- Park facilities such as trails, agriculture, and habitat restoration are allowable uses within the floodplain

Constraints

- Only a small portion of the TRVRP is located outside of the floodplain (primarily the agricultural portion of Spooner's Mesa)
- Flood waters are contaminated with sewage and pose a health risk to park users
- Flood waters contain high amounts of trash which are deposited on park land
- Flooding causes sedimentation within the park

MANAGEMENT GUIDELINES

- The County should adopt and comply with the City Of San Diego's Approved Flood Control Strategy as described above
- Early warning of probable flood events should be used to close the areas of the park that are within the floodway to public access
- Following a flood event, the County will ensure that the park is clear of debris and other flood damage prior to readmitting the public
- Public education about the natural and unnatural cycles of flooding within the Tijuana River Valley should be included in all interpretive signage, docent tours, and lectures about the nature of the park
- Emergency procedures should also be included in public educational formats along with a clear and concise evacuation plan

EROSION AND SEDIMENT CONTROL

ISSUES

- Run off from Spooner's Mesa flows down to the river, through canyons, blocks roads, fills up ponds, covers vegetation, and covers farmland.
- County acquiring land uphill from major public infrastructure. Some of these parcels were graded and not restored.
- Presently, many dirt roads are highly erosive causing downstream sedimentation
- Roads are often damaged during flooding events

BACKGROUND

The most notable erosion in the valley is seen in the gullies and ravines on Spooner's Mesa. Areas especially susceptible to erosion are the previously excavated areas on the eastern and western ends of the mesa. The part of the Model Marsh Restoration Project at the former Fenton quarry will help to reduce erosion at the western end. The eastern end is currently still in private ownership and subject to requirements for reclamation pursuant to the State Mining and Reclamation Act.

In addition, large quanities of silt and sand are carried down the River, Smuggler's Gulch and Goat Canyon. The silt is eventually deposited in the estuary contributing to an ongoing siltation problem. The sediments are also causing problems for the flood management program implemented annually by the City of San Diego.

Much of the erosion and redepositon will continue undisturbed as part of the natural process of succession. Urban runoff, storm drains, and human disturbance are accelerating the natural process by concentrating flows, increasing flow velocities, and damaging slope vegetation. While much of the problem is originating in Mexico, steps can be taken locally to help alleviate the problem.

MANAGEMENT GUIDELINES

- Construction of the Smuggler's Gulch Sedimentation Basins and Constructed Wetland Filtration System should greatly alleviate the sediment flows coming through this canyon.
- Revegetation of Spooner's Mesa should reduce sedimentation run off from this source
- Revegetation throughout the park, as outlined in Habitat Restoration and Resource Management above should decrease run off from currently degraded areas
- Proper use of the trail buffer system in guiding public circulation should reduce erosion from off-trail activities
- Proper trail and road maintenance within the Park should reduce unwanted run off from these surfaces
- Public education regarding the natural and unnatural roles of erosion and sedimentation within the Tijuana River Valley should be included in all interpretive signage, docent tours, and lectures about the nature of the park

ILLEGAL DUMPING AND UNPERMITTED USES PREVENTION PROGRAM

ISSUES

- Trash in the river and adjacent areas
- Illegal dumping
- Unregulated or unpermitted uses such as off road vehicle use

BACKGROUND

Illegal dumping is a chronic issue throughout the valley. Collections of household garbage, furniture, appliances, and construction materials are sometimes found incorporated into berms. Presently within the TRVRP, the removal of illegally dumped debris is a major park operations concern. The County has also recently taken a former lessee to court for depositing debris several feet high over several acres. Cleanup costs are significant.

The opportunities and constraints encountered by the proposed park are:

Opportunities

- Removal of illegal debris will enhance the visual character of the park
- Removal of debris will improve the ecological integrity of the park
- Preventing access to control dumping will help to reduce cleanup costs
- Controlling access will also limit illegal off-road vehicle use within the TRVRP

Constraints

- Lack of enforcement
- Lack of funding for cleanup

MANAGEMENT GUIDELINES

Proposed guidelines to decrease the damaging effects of dumping and un-permitted uses include:

- Increase surveillance of the park property
- Organize cleanup events with the public
- Educate property owners and park users about park policies and procedures
- Enforce dumping laws
- The County and City of San Diego, with possible help from other agencies, should address a collaborative effort to control and enforce against illegal dumping in the valley.
- The other illegal use commonly occurring within the park, trespassing and off-road vehicle use, will also be controlled with similar access control measures. Barricades that only allow bicycles and horses to pass should be constructed.

ILLEGAL IMMIGRATION/ BORDER PATROL INTERFACE

ISSUES

- Illegal immigration is the most frequent unpermitted use in the TRVRP
- Uncontrolled and undirected foot traffic from illegal immigration causes trampling of habitat and disturbance to sensitive wildlife in the area
- Illegal immigration is a safety issue throughout the park as a whole
- Impacts/benefits of proposed Border Patrol secondary fence

BACKGROUND

Illegal crossings along the international border within the FPA require a significant commitment of resources by the Border Patrol of the U.S. Immigration and Naturalization Service. Prior to the implementation of Operation Gatekeeper, illegal crossings were as high as 5,000 people per day. Impacts to sensitive resources as a result of illegal immigrants passing through the FPA include:

- Damage to sensitive and endangered species
- Erosion of soils
- Trash

An unfortunate by-product of the need to provide constant monitoring of lands within the FPA has been the development of a road system used by the Border Patrol to patrol lands within the FPA.

The Border Patrol is currently studying the feasibility of constructing an observation road that would be immediately parallel to and adjacent to the border fence. The Border Patrol believes that the fence will greatly increase its ability to deter and apprehend illegal immigrants at the border thereby reducing the need for the existing extensive dirt road system within the FPA. The feasibility of this concept is under review by the Border Patrol.

TRVRP

There are several miles of dirt roads, within the TRVRP, that are regularly used by the Border Patrol. At locations where the TRVRP is contiguous to the international boundary (i.e. Spooner's Mesa), activity by the Border Patrol is very high as its preferred method to deter illegal crossings is to have high visibility along the border fence. While many of these dirt roads can also be used as equestrian trails, they often do not offer a high quality experience for users.

The Border Patrol is currently studying the feasibility of constructing a secondary border fence that would be parallel and off-set approximately 150' north of the existing primary fence. An EIS is currently being prepared for public review. The County should participate in the review process and assess all benefits or impacts to the park.

The following identifies the opportunities and constraints illegal immigration poses for the propose park:

Opportunities

- Reducing illegal immigration through the TRVRP will reduce impacts to sensitive resources and reduce trash
- Reducing illegal immigration through the TRVRP will decrease threats to public safety

Constraints

- There will always be a need to monitor illegal immigrant presence in the park

MANAGEMENT GUIDELINES

- Park staff should be aware of illegal immigration concerns and cooperate fully with the U.S. Immigration and Naturalization Service and Border Patrol
- All park staff should be fully acquainted with appropriate procedures for illegal alien encounters

- Public notification and education about illegal immigration should be included in TRVRP public literature

SEWAGE AND WATER QUALITY

ISSUES

- Increased nutrient loading
- Contamination with toxic materials
- Alteration of stream flows
- Increased sedimentation
- International conflicts and cooperation

BACKGROUND

The Tijuana River Valley and estuary are sensitive environments that are dependent on the water flows within and from the Tijuana River watershed **(Figure 4).** The estuary's tidal prism requires a delicately balanced intermingling of fresh water and salt water. The riparian woodland requires an appropriate surface flow of fresh water and an equally appropriate level of groundwater to survive and flourish. The quality of water is vitally important to the viability and functioning of these natural communities. Since the 1930s, however, a steadily increasing volume of raw sewage has entered the Tijuana River Valley flowing north from the municipality of Tijuana.

The Mexican treatment system continues to fail, resulting in overland flows of raw sewage into the canyons and gullies that lead to the estuary. This leads to serious hazards to public health and the contamination of the riparian woodlands and estuary.

The ecological impacts of wastewater entering the Tijuana River include increased nutrient loading and contamination with toxic materials, alteration of stream flows, and increased sedimentation. Alteration of stream flows poses the greatest impact to the riparian woodland. Increased flows in the dry summer months, when stream flows are typically at their lowest, disrupt the natural intermittent stream cycle. Increased flows occur when the Tijuana sewage system fails or breaks, causing unseasonable surface flows. Increased sedimentation and nutrient loading pose a serious public health threat. Additionally**,** lack of adequate water drainage and waterway maintenance allows untreated sewage caught in the riparian vegetation to back up and create ponds that are ideal breeding grounds for mosquitoes.

A regional park within the river valley must consider both the health hazards presented by uncontained sewage flows to park users and, conversely, the effects of the park on the valley's water quality.

Status of Efforts to Minimize Impacts, Including Treatment Facilities

As a response to the sewage issue, the IBWC has recently completed the advanced primary facilities of the federally funded International Wastewater Treatment Plant (IWTP) on thirty-five acres in the eastern valley. Its location is southeast of the intersection of Dairy Mart Road and Monument Road. Its basic operation is to capture the excess wastewater from the over-taxed Tijuana pumping plant and collection system. Renegade dry season sewage flows are also collected from the Tijuana River and from five canyons (Smuggler's Gulch, Goat Canyon, Silva Drain, Stewart's Drain, and Canyon del Sol) that discharge untreated sewage and runoff from Tijuana into the river valley (RECON, 1991).

The advanced primary facilities are designed to remove 75 % or more of the solids. During the operation of the IWTP, prior to discharge through the South Bay Ocean Outfall, acute toxicity standards were exceeded.

An underground outfall tunnel, (South Bay Ocean Outfall [SBOO] and South Bay Land Outfall [SBLO]), that can carry an average flow of 174 million gallons per day of the effluent 3.5 miles out to sea has recently been completed. In October 1998, the USIBWC and the Environmental Protection

Agency announced agreement on the completely mixed aerated (CMA) pond system at the Hofer Site alternative described in the Long Term Treatment Options for the South Bay International Wastewater Treatment Plant Draft Supplemental Environmental Impact Statement. This system consists of four ponds; each divided into five cells, followed by two surface aerated ponds located on approximately 36 acres adjacent to the advanced primary facilities of the IWTP. The secondary treated effluent produced in the ponds is planned to be discharged through the SBOO. The final Supplemental Environmental Impact Statement **is expected to be released in ???**. **The final decision of whether to use the ponds or more conventional means of treatment is expected to be issued in ????.**

TRVRP Related Issues

While the new treatment plant offers interim solutions for Tijuana's overtaxed treatment system, it does not alleviate the problem of fugitive sewage flows in the Tijuana River Valley. Approximately 30 percent of the City of Tijuana is not plumbed for sewer. The problem of sewage flows into the river is a continuing concern. The river itself is the major conduit for these flows.

The following lists those opportunities and constraints encountered by the proposed regional park in the river valley location:

Opportunities

- With the recent completion of the primary treatment plant and associated South Bay Ocean Outfall **(SBOO),** sewage flows through the park will be greatly reduced
- With a reduction in health risks for park users, additional park uses are finally feasible
- Tertiary treatment technology could be developed to provide a source of reclaimed water to support park activities

Constraints

- Wet weather runoff conditions will still result in sewage flows through the park; this will require the closure of any park activities that would provide direct contact with non-potable water
- The risk of disease spread through mosquitoes

Figure 21 Ortho Photo

MANAGEMENT GUIDELINES

- Considerations for public health will need to be given when planning visitor access to the contaminated sites
- Consideration must also be given to appropriate disposal of County operational staff and visitor generated effluent
- Location of equestrian facilities and trails is also of concern
- Staging areas should be located where they do not necessarily view the treatment plant facility
- Construction of the Smuggler's Gulch Sedimentation Basins and Constructed Wetland Filtration System should filter out and treat many of the sewage contaminants before they reach the river

BRUSH MANAGEMENT

ISSUES

- Liabilities
- Impacts to habitat

BACKGROUND

From a habitat management perspective, coastal sage scrub and chaparral vegetation found on the mesa should undergo regular controlled burns to encourage new and more robust growth. Riparian habitat does not require this cycle of burns. Controlled burns eliminate or reduce the level of accumulated vegetative fuel loading which can be hazardous and make controlling a wildfire much more difficult.

However, potential hazards and liabilities associated with controlled burns leaves this an undesirable method of brush management for the TRVRP. The less potentially hazardous methods of brush clearing and thinning are more appropriate for methods of brush management for habitat areas adjacent to urban areas and equestrian facilities.

MANAGEMENT GUIDELINES

- Brush shall be managed on County property where failure to do so may result in brush fire risk to adjacent private property

- Controlled burns will not be employed as a brush management method. Rather, clearing of fire breaks and brush thinning will be employed as needed to reduce fuel loading

- Fire breaks shall be created only in areas designated as buffer areas. No areas designated as habitat areas shall be cleared

(We need to discuss the ability to use controlled burns under certain conditions)

VI. INTERPRETIVE GUIDELINES

The TRVRP is an area rich in natural resources and cultural history. The Park has a unique location adjacent to the U.S. Mexico border. The Tijuana River watershed itself exists within both countries. This unique blend of resources, history, and location enriches the abundant opportunities for interpretive topics within the Park:

- Wildlife viewing and preservation
- Natural habitats, types and values
- Native American history
- European history
- Modern Agriculture
- Wetland filtration systems
- Tours of the Agricultural Research Center
- Natural resources (formation of the valley)
- Habitat restoration
- Equestrian tours and events
- Biking tours and events
- Hiking tours and events

Coordination of interpretive activities with neighboring activities of interest could occur:

- TRNERR
- International Wastewater Treatment Plant

Due to the regions mild weather, Park lead tours and activities could be conducted year round. Docents could be either volunteers or rangers for the county. There are also opportunities for the many interested independent groups and organizations to create and lead their own tours of the Park. Public volunteers could form an organization such as “Friends of Tijuana River Valley Regional Park” to help create interpretive activities. An interpretive ranger at the new ranger station should be designated to coordinate all interpretive activities within the TRVRP.

VII. IMPLEMENTATION PLAN

FUTURE ACQUISITION

The Park boundary will be adjusted as additional Park land is acquired for park and open space purposes. The following guidelines should be considered when planning the uses for additional Park land.

- The land within the floodway will continue to be constrained per city ordinances (no structures)
- If Land acquired along monument road should be considered for continued agricultural/ranching uses
- Land Acquired Near the intersection of Sunset Ave and Hollister Street should be considered for active recreation or agriculturual uses consistent with the City of San Diego's Land Use Plan
- Land acquired west of 19th Street (Saturn Boulevard) should be considered for open space or field agricultural uses

PRIORITIES AND COSTS

PHASING

TRVRP implementation will be accomplished in phases. Prioritization and phasing will be based on both cost and need. The first phase will be to address Park definition and practical use by the public while the remainder of the park is installed in subsequent phases. Phase One will involve the following:

- Establish Park boundary
- Define and establish control of access points
- Install Park signage
- Install Dairy Mart Ponds Staging Area
- Install Trail Buffer System
- Begin Habitat Restoration

Recommendations for phasing the remainder of the Park Elements are . . .

The final decisions for phasing prioritization will be determined by the County based on funding, staffing availability, and perceived need. To assist in this decision making process, implementation costs for the Park Element Concepts have been included below.

COSTS

The Park must address two cost categories. One is the development cost of the design elements. The second is the management and operations cost.

The following lists each of the Park Element Concepts discussed in Section IV and their anticipated cost of development. Total costs include design fees, construction costs and fees, and permitting fees. **Management and operations costs . . .will be, should be, are?**

Park Element Concept	Estimated Costs			
	Design	Construction	Permitting	Total
Spooner's Mesa Picnic/Youth Program Area				
Smuggler's Gulch Sedimentation Basins and Constructed Wetland Filtration System				
Equestrian Centers				
Cultural Museum/ Ranger Station/ Maintenance Facility				
Day Use Staging Areas				
Recreation Complex				
Agricultural/Natural Resource Demonstration & Research Center				
Agriculture				
Habitat Restoration and Resource Management				
Trail/Buffer System				

VOLUNTEERS

Implementation of the TRVRP will require the assistance of public volunteers. Events that require large numbers of people to implement successfully, such as habitat restoration projects or trail building, should elicit the aid of volunteers. Volunteers groups, such as Little League, will primarily run the recreation complex. Volunteer docents should be encouraged to lead interpretive activities. Youth programs within the Park and on Spooner's Mesa will be volunteer lead. Following the floods that deposit large amounts of debris volunteers could be coordinated for Park clean-up events. As with interpretive activities, volunteer events and activities should be coordinated through the new Park Ranger Station.

STAFFING REQUIREMENTS

Park staffing requirements are based on established maintenance guidelines. The following maintenance criteria is intended to aid park maintenance planners project staffing requirements and maintenance plans that will result in effective park management.

TIJUANA RIVER VALLEY
REGIONAL PARK
STAFFING ESTIMATE FOR
PROPOSED PARK PLAN

STAFF YEARS

Park Use	Supervising Ranger	Senior Ranger	Park Ranger	Maintenance Worker	Volunteer	TRVEA Volunteer	TOTALS
Camping*	0.5	0.5		0.5	2.0		3.5
Agricultural Leases (110 acres)		0.1					0.1
Equestrian Leases (17 acres)		0.1					0.1
Sports Park				1.0			1.0
Open Space		0.2	0.2				0.4
Staging/Day Use Areas**				0.2			0.2
Trails		0.5		0.3	0.5	4.0	5.3
Friends/Docents	0.2				0.5		0.7
Docent Visitor Center		0.1					0.1
Ranger Station	0.3						0.3
TOTALS	**1.0**	**1.5**	**0.2**	**2.0**	**3.0**	**4.0**	**11.7**

* Assume 50 campsites
** 2 staging Areas plus area around visitor station

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XI. TECHNICAL APPENDICES

APPENDIX A

AGENCY JURISDICTION, PLANS, AND REGULATIONS

LAND USE RESTRICTIONS BASED ON FUNDING SOURCES

California Wildlife, Coastal and Park Land Conservation Act: Using funds supplied by the California Wildlife, Coastal and Park Land Conservation Act (also known as 88 Bond Act), and in some cases supplemented by Coastal Resources Energy Assistance, Tia Juana Water District Funds and revenues, the County has acquired approximately 96% (1,139 acres) of its total land holdings within the TRVRP. The land was determined to be of high quality habitat or disturbed land with the potential for restoration. Also, the State Senate approved Senator Steve Peace's emergency regulations to amend the regulations to allow flood planning on land purchased with 88 Bond Act Funds. Of the above mentioned funding sources, the 88 Bond Act funds are the most restrictive and are presented below.

Under Section 5907 of the Act, the expenditure of funds was to acquire natural lands in the Tijuana River Valley. Natural lands as defined by Section 5902 of the Act means:

> *an area of relatively undeveloped land which (1) has substantially retained its characteristics as provided by nature or has been substantially restored, or which can be feasibly restored, to a near-natural condition, and which has outstanding wildlife, scenic, open space, or park resources, or a combination thereof, or (2) meets the definition of open-space land in Section 65560 of the Government Code.*

Park resources are defined as:

> *a tract of land with outstanding scenic, natural, open space, or recreational values, set apart to conserve natural, scenic, cultural, or ecological resources for present and future generations, and to be used by the public as a place for rest, recreation, education, exercise, inspiration, or enjoyment.*

Section 65560 defines open space land as:

> *any parcel or area of land or water which is essentially unimproved and devoted to an open space use as defined in this section, and which is designated on a local, regional or state open space plan as any of the following:*
>
> *a. Open space for the preservation of natural resources including, but not limited to, areas for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecological and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.*
>
> *b. Open space used for the managed production of resources including but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of ground water basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.*

In the local Planning Provisions of State Government Code, Article 10.5 "Open-Space Lands", Section 65560, also includes:

a. Open space for outdoor recreation, including, but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores beaches, and rivers and streams; and areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.

b. Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.

State Coastal Conservancy: Pursuant to Chapter 6 of Division 21 and Sections 31251-31270 of the California Public Resources Code, the County of San Diego has received 2 million dollars for the purchase of land to be included within the TRVRP. Land purchased with these funds shall be managed for multiple public purposes: habitat protection, open space preservation, and the provision of public access and passive recreation. To date, no land within the TRVRP has been purchased using this funding source.

In 1997, the State Legislature allocated to the Wildlife Conservation Board, $2 million for acquisition of land within the Tijuana River Valley. The Coastal Conservancy administers the funding. The use of the land is restricted by conditions associated with the funding source, the Habitat Conservation fund. The funds require that the managing agency be authorized by statutes to operate and manage *"park, recreation facilities, open space or wildlife areas"*. The land acquired must be used for purposes of the California Wildlife Protection Act of 1990. Regarding public access to lands, this Act states (Section 2799.5) *"Reasonable public access to lands acquired in fee with funds made available pursuant to this chapter shall be provided except when that access may interfere with habitat protection"*.

Pursuant to the Grant agreement, the County is also subject to Chapter 6 of Division 21 of the California Public Resources Code. The properties are being acquired for the purposes of implementation of the Tijuana River Valley Enhancement plan, approved by the Coastal Conservancy on April 23, 1998. The enhancement plan states that *"completion of the acquisition projects will protect both plant and wildlife habitat while providing greatly needed open space and public access opportunities for residents and visitors to San Diego County"*. Along with acquisition of the property, the County is required to prepare a management plan that provides specific measures to *"address various habitat and species requirements of the property acquired, including the specific habitat needs of the rare and endangered plant and animals identified in the plan"*. The plan shall also address *"in detail public access and recreational needs and shall identify the public access improvements that can be made consistent with the protection of sensitive resources"*. We were unable to find any definition of *"passive recreation"* in any of this legislation.

County of San Diego policy Cp-15 states that uses permitted as a public passive park/recreational area include: *Natural or ecological areas; landscaping; walkways, paths and trails; interpretive features and improvements; benches for seating; scattered picnic tables (max 5/acre); children's play area (not more than 3,500 square feet. One additional play area allowed for each 2.5 acres of park area); scattered horseshoe pits; drinking fountains; low intensity safety/security lighting; appropriate off-street parking; restrooms;*

ranger residences and volunteer pads; maintenance sheds; primitive camping; and other park facilities/uses with activity levels consistent with the above listed uses. Uses not permitted in a passive recreational area include: formal facilities for athletic fields; permanent buildings (other than those specified above); any other facility or use that would tend to generate attendance/ activity levels inconsistent with a passive park/recreation area.

The final MSCP Plan, Section 6.2 Guidelines for land uses with the MHPA, states that *"Riding and hiking trails will be allowed within appropriate portions of the preserve to provide passive recreational opportunities for the public. Other passive activities such as photography, bird watching, scientific research, and public education programs should also be encouraged. Sailing, swimming, and fishing can also be compatible with biological objectives of the MSCP. . . Active uses such as camping, athletic fields, and other organized sports activities are generally incompatible with preserve areas and linkages but may be compatible at the edges of preserves provided that light noise, and trash impacts are controlled. Off-highway vehicle use is incompatible with preserves and linkages, except on designated roads and as provided for in suburban areas. . ."*

State of California Transportation Environmental Enhancement and Mitigation Program Grant: As enhanced mitigation for improvements to state transportation facilities and pursuant to Section 164.56 of the Streets and Highways Code, land within the TRVRP has been purchased to acquire approximately 26 acres of coastal sage scrub in the Goat Canyon region (APN 662-020-02).

TIJUANA RIVER VALLEY LOCAL COASTAL PROGRAM LAND USE PLAN (LUP)

The new Language adopted by the Coastal Commission for the July 1998 Draft LUP, was not available at the time of this printing. At their next meeting, the Coastal Commission will approve the revised language. Then, the City of San Diego must adopt the final LUP language.

The updated plan was written with the intention of implementing the common goals of the MSCP plan. A major change from previous planning documents is the emphasis on the enhancement of the natural features of the area **(Figure 17).** The plan refers to the consistency with the existing TRVRP Framework Plan that will be superceded when the updated Plan is approved.

As shown on Figure 17, two designations are applicable to TRVRP: (1) Multi-Species Conservation Open Space, and (2) Other Community Open Space and Agriculture. The first designation is consistent with the MSCP discussed below. The goals of the second designation are to expand the open space system, retain agricultural uses, and provide a range of opportunities for active and passive recreation in the valley.

The Local Coastal Program Land Use Plan has recently been adopted by the City of San Diego and is scheduled for approval by the Coastal Commission in February 1999. Coastal Commission staff is recommending changes to some sections of the plan, the most significant being the requirement for an analysis to be performed on agricultural conversion projects to determine if continuation of agricultural practices is unfeasible.

CITY OF SAN DIEGO'S MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP)

Most of the land within the park boundaries is included within the Multi Habitat Planning Area of the City of San Diego's MSCP Subarea Plan which identifies

conservation and habitat enhancement goals for the valley. The MHPA includes planning guidelines that provide further guidance on the implementation of the MSCP. In addition, the MSCP Subarea plan includes a management framework for the Tijuana River Valley. The management directives are summarized in Section 1.5.5 and anticipated further refinement during the development of the TRVRP Management Framework Plan.

Development allowed within MHPA Areas

Compatible uses are identified as: passive recreation; utilities lines and roads; limited water facilities; limited low density residential; brush management and limited agriculture. Refer to sections 1.4 and 1.5 of the Subarea plan for additional use and management information. Developable areas on land within the MHPA is limited to 25 percent of the least sensitive portion of the parcel. Siting standards from least sensitive to most sensitive are recorded in the City's "Biology Guidelines". Unavoidable impacts require mitigation consistent with the Biology Guidelines. Impacts to wetlands are required to be avoided.

The City of San Diego's MSCP.

Implementation of the principles of the MSCP is through the City of San Diego Multi-Habitat Planning Area (MHPA) guidelines. The MHPA area (**Figure 18**) delineates core biological resource areas and corridors targeted for conservation.

Figure 16 Orthographic Map

Figure 16 Orthographic Map

Figure 17 LCP Map

Figure 18 MSCP Map

Figure 18 MSCP Map

Specific MHPA Guidelines (March 1997) that affect the County Regional Park include (note: numbers in parentheses refer to areas indicated on Figure 18):

- Maintain existing estuary and park uses (A15)
- Maintain a buffer (typically 100-foot minimum) around all riparian areas (A16)
- Maintain existing agricultural uses on Spooner's Mesa, with a long-term goal of phased restoration to coastal sage scrub, maritime succulent scrub or native grasslands (A17)
- Maintain agricultural use on County-owned lands, with long-term goal of restoration to native vegetation where possible, consistent with County's Management Framework Plan (A18)
- Retain, and enhance where possible, existing riparian habitat along the Tijuana River (A19)

Development Allowed within MHPA Areas

Developable areas on land zoned A-1-10 (to be re-designated as OR-1-2) within the MHPA areas are limited to 25% of the total area of the parcel. However, this does not allow for impacts to wetlands.

TRNERR MANAGEMENT PLAN

The management plan was prepared to provide guidelines that will allow TRNERR to meet established estuarine resource protection goals for the period of 1998-2003. Through adoption of this plan, each public agency owning land within TRNERR agrees to implement its own policies in a coordinated fashion to achieve the goal of a seamless reserve. Approximately 300 acres of TRVRP lands are within TRNERR and are designated as either Wetland/Wildlife Conservation Zone (WCZ) or Ecological Buffer Zone (EBZ) (Figure 19). The zoning scheme for these two areas is described as follows:

WCZ: Maintain natural conditions and restore disturbed lands to complementary habitat. Some public use is allowed, mainly along pedestrian and equestrian trails.

EBZ: The main objective is to provide a land use buffer between the sensitive habitats within the estuary and non-compatible land uses.

LAND USE CONSTRAINTS BASED ON APPLICABLE ZONING AND ORDINANCE REGULATIONS

Several types of regulatory zones apply to land within the TRVRP. These include:

- City of San Diego Floodway (FW) Zone
- City of San Diego Floodplain Fringe (FPF) Overlay Zone
- City of San Diego Agricultural (A-1-10) Zone
- Resource Protection Ordinance
- Hillside Review Overlay Zone

All of the park land that is not within FW and FPF zones, as shown on Figure 20, is zoned A-1-10, with other restrictive overlay zones (hillside review, critical habitat, and coastal development permit).

Floodway Zone (FW): City of San Diego, Municipal Code 101.0403, FW Zone regulates development in this area. The intent of the City FW Zone is to regulate and control development in the delineated floodways of floodplains.

The relatively level Tijuana River Valley floor is a floodplain. It encompasses the 100-year and 500-year floodplain limits as determined by the Federal Emergency Management Agency (FEMA). Additionally, nearly the entire width of the river valley is in the floodway (Figure 20).

Floodways represent the portion of the floodplain that can convey a 100-year flooding event without increasing the water surface of the 100-year floodplain within which it lies. Floodways can be expected to flood regularly, often with deep and fast moving water. Development or uses that

would impede the flow of floodwaters are not permitted.

Permitted Uses Within the FW Zone: as specified by the FW zone as follows:

No structure or improvement or portion thereof shall be erected, constructed, converted, established, altered or enlarged, nor shall any premises be used except for one of the following purposes:

- Apiaries
- Aviaries
- Commercial cut flowers
- Raising of livestock
- Parking lots (to serve structures outside of floodway)
- Public parks and playgrounds
- Field and seed crops
- Groundwater replenishment works
- Temporary buildings with a maximum floor area of 300 feet are permitted if they are not attached to permanent foundations and can be removed within 8 hours after notification by the City

With a Conditional Use Permit the following uses might be allowed:

- Fairgrounds
- Golf courses
- Natural resources development
- Camping parks

No project within the FW zone shall be implemented that will reduce the capacity of the floodway, cause a rise in the 100-year water surface elevations or alter the direction of flood flows.

Land uses allowed within a floodway fringe are highly restricted compared to even the larger floodplain in which they lie. Planning within the floodplain is restricted but to a lesser degree than the floodway due to the slower velocities and shallower depths of the floodwaters.

Floodplain Fringe Zone (FPF)**:** City of San Diego Municipal Code 101.0403.1 FPF Zone is an overlay zone, in that underlying zone (A-1-10) regulations still apply. The FPF zone requires that the lowest floor level of any habitable structure be two feet above the 100-year flood water, unless the structure is non-residential which may be flood-proofed (in lieu of elevated) to two feet above the 100-year flood water elevation. However, because the property is within the Coastal Zone, within the 100-year FPF, permanent structures, roads, and other public improvements consistent with the adopted Local Coastal Program Land Use Plan (see above) will only be allowed if: 1) the development is capable of withstanding flooding without flood protective works (dikes, levees, channels), 2) existing sensitive habitat is not adversely impacted, 3) a site specific hydrologic study shows that there will be no increase in the peak run off rate and the project will not contribute to downstream bank erosion and sedimentation of wetlands or sensitive habitat areas, and 4) there will be no adverse impacts to water quality downstream. In addition, any development must provide a 25-foot open space strip between it and the Floodway, and a 50-foot buffer around all riparian habitat areas.

Within the TRVRP the FPF will apply to land zoned A-1-10 land located between Monument Rd. and the southern limits of the Floodway Zone.

A-1-10 (Agriculture) Zone: The A-1-10 zone applies to all lands within the TRVRP located outside to the floodway. The intent of the zone is to restrict development to the following uses:

- Single family dwellings (10 acre minimum)
- Churches
- Private stables
- Agricultural uses
- Public utility stations
- Killing and dressing of poultry, fowl, or rabbits
- Harvesting, processing, or selling of crops produced on same premises

- Accessory buildings
- Any enterprise or business which the Planning Commission determines, in accordance with "Process Four," to be similar in character to the uses mentioned above

Figure 19 TRNERR

Figure 20 Flood Map

Figure 20 Flood Map

COASTAL PERMIT REQUIREMENTS

The entire TRVRP area is subject to a Coastal Development Permit overlay. The permit is processed and approved by the City of San Diego and can be appealed to the Coastal Commission. A permit is required for any development project:

Pursuant to Section 30106, "Development" means: *on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision . . . except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes.*

As used in this section, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, or electrical power transmission and distribution line.

In addition, the Coastal Commission must review all federally funded or permitted projects for consistency with the State's approved coastal management program.

To determine whether a coastal permit is required, refer to City of San Diego Municipal Code Section 126.0702, Article 6 Development Permits, Division 7 Coastal Development Procedures.

FEDERAL AND STATE REGULATIONS PROTECTING WETLANDS

Federal and state regulations protecting wetlands will be applicable on some land within the TRVRP. Primarily this will be the riparian corridor along the river.

Land is considered a wetland if it has one of the following conditions:

- Naturally occurring wetlands vegetation
- Hydric soils
- Wetland hydrology

Specific regulations include:

- ACOE 404 permit
- California Fish and Game Streambed Alteration Agreement
- Regional Water Quality Section 401 Permit

The 404 permit is a subset of the Clean Water Act. The City of San Diego's proposed revisions to the Municipal Code, which were approved by the Coastal Commission Board on February 4, 1999, contain the following allowable uses in wetland buffers:

Section 143.0130 (e) Wetland Buffer Areas in the Coastal Overlay Zone. Permitted uses in wetland buffer areas shall be limited to the following: (1) Public access paths; (2) Fences; (3) Restoration and enhancement activities; and (4) Other improvements necessary to protect wetlands.

Section 143.0141 Development Regulation for Sensitive Biological Resources: Development that proposes encroachment into sensitive biological resources or that does not qualify for an exemption pursuant to Section 143.0110(c) is subject to the following regulations and the Biology Guidelines in the Land Development Manual.

(a) State and federal law precludes adverse impacts to wetlands or listed non-covered species habitat. The applicant shall confer with the U.S. Army Corps of Engineers, U.S.

Fish & Wildlife Service and/or California Department of Fish and Game before any public hearing for the development proposal. The applicant shall solicit input from the Resource Agencies on impact avoidance, minimization, mitigation and buffer requirements. The applicant shall, to the maximum extent feasible, incorporate the Resource Agencies recommendations prior to the first public hearing. Grading or construction permits shall not be issued for any project that impacts wetlands or listed non-covered species habitat until all necessary federal and state permits have been obtained.

(b) Outside and inside the MHPA, impacts to wetlands, including vernal pools in naturally occurring complexes, shall be avoided. A wetland buffer shall be provided around all wetlands as appropriate to protect the functions and values of the wetland. In the Coastal Overlay zone the applicant shall provide a minimum 100-foot buffer, unless a lesser or greater buffer is warranted as determined through the process described in 143.0141(a). Mitigation for impacts associated with a deviation shall achieve the goal of no-net-loss and retain in-kind functions and values.

The City of San Diego's proposed definition of wetlands is more restrictive than the federal definition: The City's Biology Guidelines contain the following:

These Guidelines have been formulated by the Development Services Department to aid in the implementation and interpretation of the Environmentally Sensitive Lands Regulations (ESL), San Diego Land Development Code (SDLDC), Chapter 14, Division 1, Section 143.0101 et seq., and the Open Space residential (OR-1-2) Zone, SDLDC, Chapter 13, Division 2, Section 131.0201 et seq. Section III of these Guidelines, (Biological Impact Analysis and Mitigation Procedures) also serve as standards for the determination of impact and mitigation under the California Environmental Quality Act (CEQA) and the Coastal Act. These guidelines are the baseline biological standards for processing Neighborhood Development Permits, Site Development Permits and Coastal Development Permits issued pursuant to the ESL. For impacts associated with steep hillsides, please refer to the Steep Hillside Guidelines for the Environmentally Sensitive Lands Regulations.

A. Sensitive Biological Resources. The ESL defines Sensitive Biological Resources as those lands included within the Multiple Habitat Planning Area (MHPA) as identified in the City of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan (City of San Diego, 1995), and other lands outside of the MHPA that contain wetlands; vegetation communities classifiable as Tier I, II, IIIA or IIIB; habitat for rare, endangered or threatened species; or narrow endemic species.

2. Wetlands. Many of the species included in the MSCP (i.e. Covered Species) are dependent on wetlands for habitat and foraging. . . . Except for areas created for the purposes of wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, or unless they have been delineated as wetlands by the Army Corps of engineers, and/or the California Department of Fish and Game, it is not the intent of the City to regulate artificially created wetlands in historically non-wetland areas. . . .

Naturally occurring wetland vegetation communities are typically characteristic of wetland areas. Examples of wetland vegetation communities include saltmarsh, brackish marsh, fresh water marsh, riparian forest, oak riparian forest, riparian woodland, riparian scrub and vernal pools. Common to all wetland vegetation communities is the predominance of hydrophyllic plant species (plants that are adapted for life in anaerobic soils). . . . Areas lacking naturally occurring wetland vegetation communities are still considered wetlands if hydric soil or wetland hydrology is present and past human activities have occurred to remove the historic vegetation, or catastrophic or recurring natural events preclude the establishment of wetland vegetation. Examples include agricultural grading in floodways, dirt roads bisecting vernal pools, channelized streambeds, areas of scour within streambeds, and coastal mudflats and salt pans that are unvegetated due to tidal duration. The U.S. Army Corps of Engineers Wetland Delineation Manual (1987) provides technical information on hydric soils and wetland hydrology.

Areas lacking wetland vegetation communities, hydric soils and wetland hydrology due to non-permitted filling of previously existing wetlands, will be considered a wetland under the ESL and regulated accordingly. The removal of the fill and restoration of the wetland under the ESL and regulated accordingly. The removal of the fill and restoration of the wetland may be required as a condition of the project approval.

Areas that contain wetland vegetation, soils, or hydrology created by human activities in historically non-wetland areas do not qualify as wetlands under this definition unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Game. Artificially created "wetlands" consist of the following: wetland vegetation growing in brow ditches and similar drainage structures outside of natural drainage courses, wastewater treatment ponds, stock watering, desiltation and retention basins, water ponding on landfill surfaces, road ruts created by vehicles and artificially irrigated areas which would revert to uplands if the irrigation ceased. Areas of historic wetlands can be assessed using historic aerial photographs, existing environmental reports (EIRs, biology surveys, etc…), and other collateral material such as soil surveys.

Some coastal wetlands, vernal pools and riparian areas have been previously mapped. The maps, labeled "C-713 and C-740" are available to aid in the identification of wetlands. Additionally, the 1":2000' scale MSCP vegetation maps may also be used as a general reference, as well as the U.S. Fish and Wildlife Service's (USFWS) National Inventory maps. These maps, available for viewing at the Development Services department, should not replace site-specific field mapping.

3. Listed Species. Habitats supporting plant or animal species which have been listed or proposed for listing by the state or federal governments as rare, endangered, or threatened

("listed species"), are also considered sensitive biological resources under the ESL. [Note: Some listed species are considered adequately conserved under the MSCP (Covered Species), others are not (Listed Non-covered Species].

B. Wetland Buffers. A wetland buffer is an area or feature(s) surrounding an identified wetland that helps to protect the functions and values of the adjacent wetland by reducing physical disturbance from noise, activity and domestic animals and provides a transition zone where one habitat phases into another. The buffer will also protect other functions and values of the wetland areas including absorption and slowing of floodwaters for flood and erosion control, sediment filtration, water purification, ground water recharge, and the need for upland transitional habitat. Uses permitted within wetland buffers are specified in Section 143.0130(e) of the ESL.

II. Development Regulation

Specific development regulations pertaining to Sensitive Biological Resources exist in the Municipal Code in both the ESL (Chapter 14, Division 1, Section 143. 0141) and the OR-1-2 zone (Chapter 13, Division 2, Section 131.0230). The following guidelines are provided to supplement these development regulation requirements.

. . . Under the ESL, impacts to wetlands should be avoided. For vernal pools, the avoidance of a sufficient amount of the watershed necessary for the continuing viability of the ponding area is also required. Unavoidable impacts should be minimized to the maximum extent practicable. Whether an impact is unavoidable will be determined on a case-by-case basis. Examples of unavoidable impacts include those necessary to allow reasonable use of a parcel entirely constrained by wetlands, roads where the only access to the developable portion of the site results in impacts to wetlands, and essential public facilities (essential roads, sewer, water lines, etc.) where no feasible alternative exists. Unavoidable impacts will need to be mitigated in accordance with Section III.B.1.a of these Guidelines. However, within the Coastal Overlay Zone, both within and outside the MHPA, impacts to wetlands shall be avoided and only those uses identified in Section 143.0130(d) of the ESL shall be permitted which are limited to aquaculture, nature study projects or similar resource dependent uses, wetland restoration projects and incidental public service projects. Such impacts to wetlands shall only occur if they are unavoidable, the least environmentally damaging feasible alternative, and adequate mitigation is provided.

A wetland buffer shall be maintained around all wetlands as appropriate to protect the functions and values of the wetland. Section 320.4(b)(2) of the U.S. Army Corps of Engineers General Regulatory Policies (33 CFR 320-330) list criteria for consideration when evaluating the wetland functions and values. These include wildlife habitat (spawning, nesting, rearing, and foraging), food chain productivity, water

quality, ground water recharge, and areas for the protection from storm and floodwaters. Wetland buffers should be provided at a minimum 100 feet wide adjacent to all identified wetlands. The width of the buffer may be either increased or decreased as determined on a case-by-case basis, in consultation with the California Department of Fish and Game, the U.S. Fish and Wildlife Service and the Army Corps of Engineers, taking into consideration the type and size of development, the sensitivity of the wetland resources to detrimental edge effects, natural features such as topography, and the functions and values of the wetland. Examples of functional buffers include areas of native or non-invasive landscaping, rock/boulder barriers, berms, walls, fencing and similar features that reduce indirect impacts on the wetland. Measures to reduce adverse lighting and noise should also be addressed where appropriate. Section 1.4.3. Land Use Adjacency Guidelines, of the City's MSCP Subarea Plan, can be used to help determine appropriate measures for wetland buffers. A 100 foot minimum buffer area shall not be reduced when it serves the functions and values of slowing and absorbing flood waters for flood and erosion control, sediment filtration, water purification, and ground water recharge.

APPENDIX B

STAFF TO TECHNICAL ADVISORY COMMITTEE (TAC)
TIJUANA RIVER VALLEY REGIONAL PARK
FRAMEWORK MANAGEMENT PLAN

NAME	ALTERNATE	ORGANIZATION
Mr. Brice Bossier		County of San Diego, Board of Supervisors
Mr. Brad Cummings		County of San Diego, Parks and Recreation
Mr. Cory Linder		County of San Diego, Parks and Recreation
Mrs. Anne Rast		County of San Diego, Parks and Recreation
Mr. Ric Repasy		County of San Diego, Parks and Recreation
Mr. Mark Webb		County of San Diego, Parks and Recreation
Mr. Gary Ruyle		Schmidt Design Group, Inc., San Diego, CA
Mr. Frank Belock	Jennifer Maxwell	City of San Diego, Engineering Department
Mr. Arnie Forsyth	Rene Gonzalez	U.S. Border Patrol, IB Station
Mr. Paul Ganster	Ron Saenz	SDSU, Inst. Reg. Studies of California
Mr. Phil Jenkins	Rebecca Young	State Parks, TRNERR
Mr. Dan Kackert	Bruce Bennett	TRVEA, Sandi's Horse Rentals
Mr. Martin Kenney		U.S. Fish & Wildlife
Mr. Jim King	Melanie Denninger	California Coastal Conservancy
Mr. Jan Larson	Edith Jacobsen	U.S. Navy NRSW Code 4515, Naval Air Station
Mr. Art Letter		Tia Juana Valley CWD
Ms. Patricia McCoy	Melanie Kush	City of Imperial Beach
Mr Lee McEachern	Ellen Lirley	State Coastal Commission
Mr. Dion McMicheaux		IBWC
Mr. Jim Peugh	Jim Coatsworth	San Diego Audobon Society
Ms. Carolyn Powers	Don Opel	Senator Steve Peace
Ms. Ann Sasaki	Dirk Smith	City of San Diego, Metropolitan Wastewater
Mrs. Ruth Schneider		Otay Mesa / Nestor CPC
Mr. Barry Simons		San Ysidro Plan. & Dev. Grp
Ms. Theresa Stewart		California Department of Fish & Game
Mr. Tom Story	Keith Greer	City of San Diego, MSCP/Comm & Econ Devt.
Mr. Ken Taylor	Luis Pena	Sun Grown Organics
Ms. B. Diane Wallace	Valerie Mellano	Farm and Home Advisor
Mr. Charles Workman		U.S. ACOE, Water Resources Branch
Mr. Bruce W. Bennett		
Mr. Jim Coatsworth		San Diego Audobon Society
Ms. Melanie Denninger		California Coastal Conservancy
Mr. Rene Gonzalez		U.S. Border Patrol, IB Station
Mr. Keith Greer		City of San Diego
Ms. Edith Jacobsen		SW Div. Naval Facilities, Eng. Command
Ms. Melanie Kush		City of Imperial Beach
Ms. Ellen Lirley		State Coastal Commission
Ms. Jennifer Maxwell		City of San Diego
Dr. Valerie Mellano		Farm and Home Advisor
Mr. Don Opel		CAARE

Mr. Luis Pena		Farmer (Lessee)
Mr. Ron Saenz		SDSU, Inst. of Reg. Studies of Cals.
Mr. Dirk Smith		City of San Diego, Metropolitan Wastewater
Ms. Rebecca Young		TJ Slough National Wildlife

APPENDIX C

BEST MANAGEMENT PRACTICES

APPENDIX D

LIST OF NATIVE PLANTS TO USE IN TIJUANA RIVER VALLEY REGIONAL PARK

APPENDIX E

RECREATION SURVEY RESULTS

RECREATIONAL OPPORTUNITIES

In 1997 the California outdoor recreation planning program of the State of California Department of Parks and Recreation conducted their bi-decennial survey of the attitudes and opinions of California residents regarding outdoor recreation. This survey provided the primary statistics used in determining the estimates of the number of participants and the annual number of activity days for the geographic area of southern San Diego county, where the Tijuana River valley is located.

PARTICIPATION RATES

Tables I and II apply the outcomes of the 1997 survey by identifying the different outdoor activities from the survey and applying them to the estimated and projected total populations in the Tijuana River Valley area. For the purposes of estimating the total resident population, the South Suburban Major Statistical Area (MSA) was determined to encompass the market area for the Tijuana River Valley. The population within the MSA is approximately 288,000 (1997) and includes the cities of Chula Vista, Imperial Beach, National City and the portion of the city of San Diego that lies south of the city of Chula Vista. Estimates of the population growth in the region were derived from the San Diego Association of Governments (SANDAG).

Table I reflects over 24 different activities identified during the 1997 survey and determines the total number of participants for each activity living in the South Suburban MSA. It also reflects how these activities will perform over the next 17 years, until the year 2015, as the population in the region increases. Table II then determines the total number of activity days for the estimated total active participants for each activity. Table I ranks activities by the most number of participants, while Table II ranks activities according to activity days. An activity day is defined as one person taking part in an activity at some point during the day and reflects the populations frequency of use. Future studies will be required to determine the suitability of the activities and to determine the ability of the TRVRP to capture a share of the various user groups.

POTENTIAL RECREATIONAL ACTIVITIES WITH REVENUE GENERATING CAPABILITIES

Camping: there is an opportunity to develop campsites for overnight use in the area. Depending on how extensive the facilities are at a campground, state and county parks charge between $7 and $22 per night per site. State park campsites average $7 per night for small sites with no hook-ups to $22 per night for more expansive sites. Day use and cancellation fees exist in most campsite areas.

Equestrian Uses**:** The largely natural and agricultural landscape in the area will make the TRVRP a popular location for equestrian-related activities. Wetlands, a lack of paved roads and traffic, and a developed system of trails have assisted in creating a regional equestrian center at the site. One of the goals of the equestrian community is to increase the number and location of trails. The existing trails are often subject to flooding, as many are located in the flood plain of the river.

Canoeing/ Kayaking**:** There is a potential opportunity to develop guided (seasonal) water tours of the area. Kayak tours or kayak rentals could be used for wildlife observation from non-land points.

Currently, water access is limited, as the waters are often quarantined for human contact from sewage contamination.

MOUNTAIN BIKING: MOUNTAIN BIKING IS CURRENTLY ALLOWED IN CERTAIN SECTIONS OF THE VALLEY FREE OF CHARGE. AS MOUNTAIN BIKING HAS THE POTENTIAL TO IMPACT TRAILS AND THE RESERVE, FEES COULD BE CHARGED FOR HOURLY OR DAILY USE.

Museum with Space for Special Events and/or Cultural Events: The FPA has been the location of several archaeological and cultural resource studies. The site could provide a location for a border museum that presented historical information as well as current border research. Currently the visitor center conducts nature walks, guided bird watching and presents wildlife exhibits, botanical resources and family workshops. A museum could target historical and social issues and provide a space for public events such as conferences or weddings. Many county and state parks use weddings as an additional source of income.

Wildlife Related Activities**:** While these activities are not necessarily revenue generating, a day use fee or parking fee could be charged for access. Wildlife observation has been a rapidly growing activity in the valley. In 1997, the park had close to 10,000 observers, up from 5,000 in 1995. Encouraging the expansion of wildlife dependent recreation activities is a goal of the estuary program. This includes the development of wildlife photography locations throughout the park.

Currently, students and faculty from San Diego State University, University of California at San Diego, various junior colleges, high schools and grammar schools are given study and research opportunities at the estuary.

Recommendations

While the surveys and demographic analyses indicate potential demand for certain active recreational activities, the land grant, floodway, and critical habitat restrictions, will make them feasible in only a few limited areas. The County may identify funding that is not specifically constrained, or consider acquisition of parcels that are out of the MSCP area.

Successful development of the TRVRP in the next few years depends on the understanding of the popularity of specific activities within the local resident market, and the ability to generate positive revenue streams from these activities. While there are certain activities currently in place in the park, dedicating resources towards the development of the following activities, where allowed, would have a positive impact on the region.

- Nature Center/Museum: With as much activity as is already dedicated to the role of the natural environment within the park, a nature center/interpretive museum can provide an extremely viable opportunity, considering that visiting museums represents the second highest outdoor activity according to the 1997 survey.

- Sports Parks: With the increase in popularity of certain sports, such as rollerblading and mountain biking, through such events as the ESPN X Games, the creation of sports parks dedicated to these activities in natural and "extreme" settings can create different recreational alternatives for local residents. Conventional sports parks, such as soccer, can also develop in this region. If an appropriate site is selected, the development of a sports park could also serve as an international youth tournament facility.

- Natural arboretums***:*** The development of an area that can provide guided tours and capture the local habitat can provide

an alternative for those individuals interested in participating in outdoor wildlife study.

Advanced Campgrounds***:*** Campgrounds which house a variety of specific activities, such as hiking, fishing, boating, and horseback riding can attract many camping enthusiasts and provide an opportunity for many to discover the natural beauty of the area. Also, if an appropriate site is selected, a modern Recreational Vehicle (RV) park could also attract regionally.

Table I – Estimate of Number of Participants Over Time					
Activity	**1990**	**1997**	**2000**	**2005**	**2015**
Walking (recreational)	221,393	243,661	288,615	338,905	402,029
Visiting museums, historic sites	195,224	214,859	254,500	298,845	354,508
Use of open grass or turf areas	178,999	197,002	233,349	274,008	325,045
Beach activities	177,429	195,274	231,302	271,605	322,194
Picnicking in developed sites	170,101	187,210	221,749	260,388	308,888
Trail hiking	151,783	167,049	197,869	232,346	275,623
Visiting arboretums	173,503	190,954	226,184	265,596	315,066
Swimming in lakes, rivers	149,689	164,745	195,140	229,141	271,821
Attend outdoor cultural events	146,549	161,288	191,046	224,334	266,119
General nature wildlife study	141,315	155,528	184,223	216,322	256,614
Attending outdoor sports	135,819	149,480	177,058	207,910	246,635
Camping in developed sites	135,034	148,616	176,035	206,708	245,209
Bicycling (paved surface)	112,005	123,270	146,013	171,456	203,391
Fishing-freshwater	97,612	107,430	127,250	149,423	177,254
Jogging and running	74,844	82,372	97,570	114,571	135,911
Softball and baseball	69,087	76,036	90,064	105,758	125,456
Camping in primitive areas	67,517	74,308	88,017	103,354	122,605
Kayaking, canoeing	47,890	52,707	62,431	73,309	86,964
Basketball	47,367	52,131	61,749	72,508	86,013
Golf	46,843	51,555	61,066	71,707	85,063
Mountain biking	46,320	50,979	60,384	70,906	84,113
Skateboarding and rollerblading	41,871	46,082	54,584	64,096	76,034
Horseback riding	37,161	40,898	48,444	56,885	67,480
Soccer	35,590	39,170	46,397	54,481	64,629
Tennis	32,973	36,290	42,985	50,475	59,877
Football	22,244	24,481	28,998	34,051	40,393
These estimates are based on the population of the San Diego County South Suburban MSA					

Table II - Estimate of Average Activity Days (Activity Participants Only)					
Activity	**1990**	**1997**	**2000**	**2005**	**2015**
Walking (recreational)	19,394,027	21,344,704	25,282,674	29,688,078	35,217,740
Jogging and Running	4,393,343	48,352,599	5,727,359	6,725,318	7,977,976
Bicycling (on paved surfaces)	5,152,230	5,670,420	6,716,598	7,886,976	9,631,986
Skateboarding and rollerblading	1,515,730	1,668,168	1,974,638	2,320,275	2,752,431
General nature wildlife study	5,059,077	5,567,902	6,595,183	7,744,328	9,186,781
Use of open grass or turf areas	5,513,169	6,067,662	7,187,149	8,439,446	10,011,386
Soccer	1,081,936	1,190,768	1,410,469	1,656,222	1,964,722
Basketball	1,397,327	1,537,865	1,821,596	2,138,986	2,537,384
Golf	1,363,131	1,500,251	1,775,275	1,775,275	2,475,333
Horseback riding	1,033,076	1,136,964	1,346,743	1,581,403	1,875,944
Tennis	821,028	903,621	1,070,327	1,256,828	1,490,937
Softball and baseball	1,671,905	1,840,071	2,179,549	2,559,344	3,036,035
Mountain biking	995,880	1,096,049	1,298,256	1,524,479	1,808,430
Beach activities	3,708,266	4,081,227	4,834,212	5,676,545	6,733,855
Trail hiking	3,111,552	3,424,505	4,056,315	4,763,093	5,650,272
Fishing-freshwater	1,591,076	1,751,109	2,074,175	2,435,595	2,889,240
Swimming in lakes, rivers	2,409,993	2,652,395	3,141,754	3,689,170	4,376,318
Attending outdoor sports	1,887,884	2,077,772	2,461,106	2,889,949	3,428,227
Camping in developed sites	1,674,422	1,842,838	2,182,834	2,563,179	3,040,592
Picnicking in developed areas	2,041,212	2,246,520	2,660,988	3,124,656	3,706,656
Camping in primitive areas	735,935	809,957	959,385	1,126,559	1,336,395
Visiting museums, historic sites	1,893,673	2,084,132	2,468,650	2,898,797	3,438,728
Football	211,318	232,570	275,481	323,485	383,734
Attending outdoor cultural events	1,231,012	1,354,819	1,604,786	1,884,406	2,235,400
Kayaking,, canoeing	316,074	347,866	412,045	483,839	573,962
Visiting arboretums	1,093,069	1,203,010	1,424,959	1,673,255	1,984,916
Based on the population defined to be the San Diego County South Suburban MSA. Activity day = 1 person engaging in activity for 1 day (or portion of day)					

APPENDIX F

ADDITIONAL FOCUSED PLANNING AREA (FPA) DATA

ADDITIONAL FOCUSED PLANNING AREA (FPA) DATA INCLUDES:

Water Service**:**

- Cal American (north of Tijuana River)
- City of San Diego (south of Tijuana River)

The Tia Juana Water District (District) covers the FPA (excluding a few County/City of San Diego parcels west of Holister). While the District does not currently provide water service within the FPA, they are responsible for the FPA's groundwater management program. In the future, this could include pumping groundwater for use within the FPA.

Land Ownership Within the FPA**:**

- U.S. Government – Navy (1,209 ac.)
- U.S. Government – USFWS (476 ac.)
- State of California (866 ac.)
- City of San Diego (218 ac.)
- County of San Diego (1,185 ac.)
- Private (766 ac.)

Existing Land Uses Adjacent to TRVRP**:**

- Low density residential
- Commercial
- Agricultural fields and packaging processing plants
- Equestrian and hiking trails
- Equestrian rental and boarding centers
- Ecological Preserve and Visitor Center
- Borderfield State Park
- IBWC Treatment Plant

APPENDIX G

PARK ELEMENT CONCEPTS
COST ANALYSES

INSERT EXCEL SPREAD SHEET HERE